

Intelligence Bulletin

MARCH 1946



MILITARY INTELLIGENCE DIVISION • WAR DEPARTMENT • WASHINGTON D. C.
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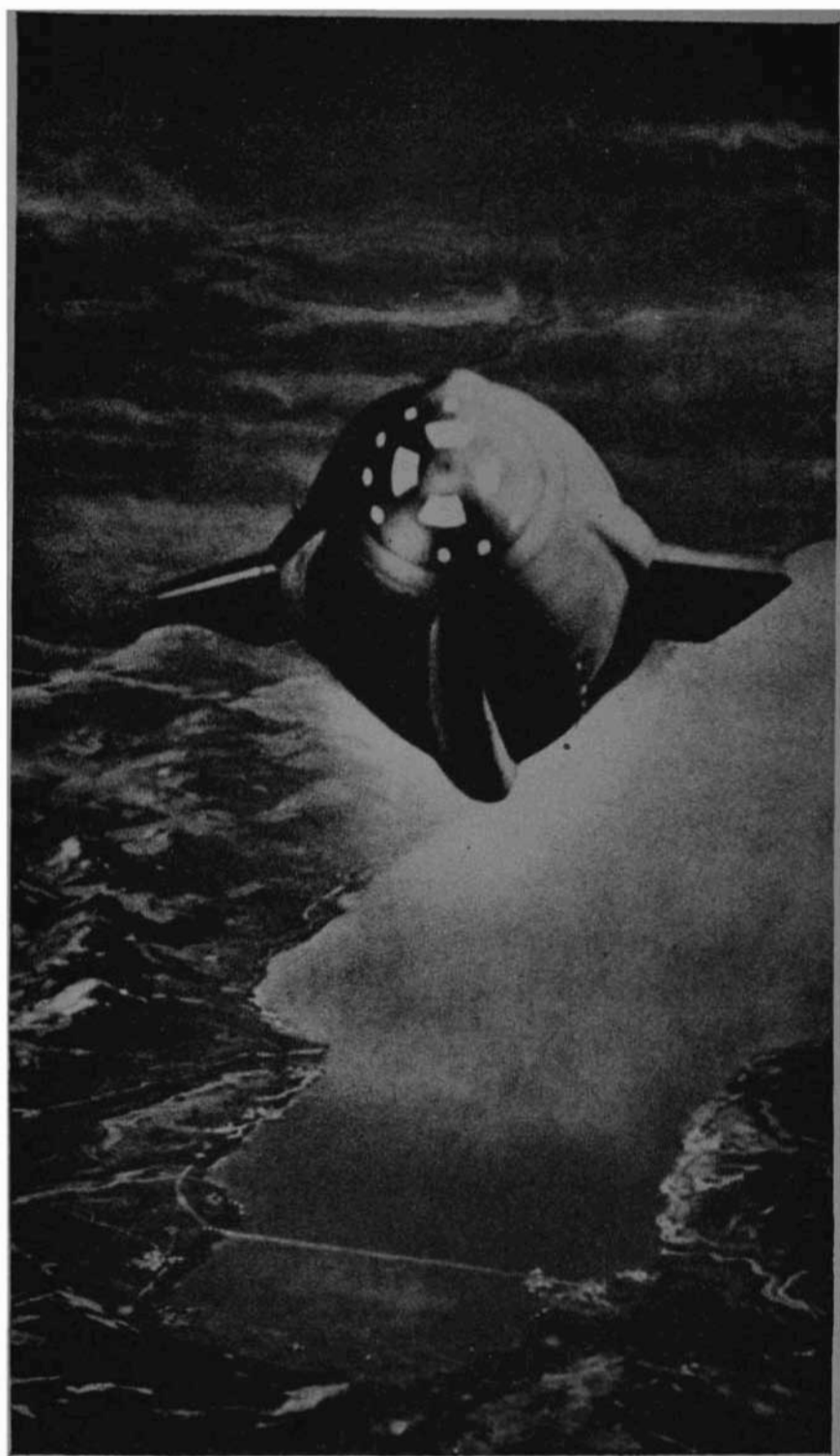
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Cover Illustration: Lightly armed Cossack cavalry, impressed into German service, was a valuable asset in policing mountainous Balkan terrain. This German-controlled cavalry represented only a small percentage of the total number of horse and horse-drawn units which, together with pack units, made up most of the "highly-mechanized" German Army. (See story on page 54.)



PREPAREDNESS IN THE ATOMIC AGE

*Returning from France after the last war, with General Pershing, I participated in his endeavors to persuade the Nation to establish and maintain a sound defense policy. Had his recommendations been accepted, they might have saved this country the hundreds of billions of dollars and the more than a million casualties it cost us again to restore the peace. We might even have been spared this present world tragedy. General Pershing was asked against whom do we prepare. Obviously that question could not be answered specifically until nearly 20 years later when Adolf Hitler led the replenished armies of defeated Germany back into world conflict. * * * From this lesson there is no alternative but that this Nation must be prepared to defend its interest against any nation or combination of nations which might sometime feel powerful enough to attempt the settlement of political arguments or gain resources or territory by force of arms.*

Twice in history the factories and farms and people of the United States have foiled aggressor nations; conspirators against the peace would not give us a third opportunity.—Biennial Report of The Chief of Staff of The United States Army, July 1, 1943, to June 30, 1945 To The Secretary of War.

← *This drawing, taken from a German magazine, is a Nazi artist's conception of warfare in the future. It depicts a rear view of a giant rocket, its propelling charge exhausted, falling to earth upon an unidentified target.*

The introduction of the atomic explosive has made a tremendous impression on the world. Many persons are asking whether the atomic bomb will not alter the whole nature of warfare if it does not stop war itself.

That men will be deterred from making war simply because a new and more horrible weapon has been brought into existence is most unlikely. The advances of modern science—and atomic warfare in particular—give any aggressor nation immensely powerful means of achieving the startling and perhaps the decisive initial military successes it seeks over the unprepared country. The chances of a nation's being overcome without having an opportunity to make an effective defense are thus greater than ever. Since the rapidity of change in the modern machine age is also being constantly intensified, the chances of economic maladjustments giving rise to widespread social, and even mental, maladjustments are also materially increased. As a result, long-range prediction as to the future attitudes toward war held by the members of the international community of nations becomes more and more difficult. War is still as dangerous a possibility as ever—perhaps more so.

While obviously it is unwise to venture a sweeping prediction concerning the effects of the atom bomb on the pattern of a future war, prudence and a concern for the preservation of civilization must lead to the conclusion that it is unwise at present to place all eggs in one basket—to place trust entirely in atomic warfare as it is now known. From a glance into the past, it is clear that the introduction of any terrible new means of waging war has usually elicited both horror and a hope that a new, cheap, and easy means of warfare has been discovered. In actuality, the introduction of new ways of war has never altered the fundamentals of war, but in the end the new methods have merely added to war's complexity and toll in human life and material expenditures.

YESTERDAY'S ATOM BOMB—THE TORPEDO

A good example of the effect of a new weapon is that of the automobile torpedo, or, as it is known today, the ordinary naval torpedo. First developed in 1862 by the Austrian Navy's Captain Luppis, the original torpedo was handed to a Robert Whitehead for perfection of design. Whitehead, Scottish manager of an Austrian engineering plant, spent 2 years developing the torpedo in top secrecy; only he, his son, and a trusted assistant were permitted to work on the project.

When perfected, the Whitehead torpedo eventually was made available to all navies. In order to capitalize on the torpedo's possibilities, navies sought an effective means of transporting the torpedo into action. The result was the first torpedo boat—a small, low, high-speed craft with the sole function of getting off its torpedoes at the big

ships, using for protection its speed and small size, as well as the cover of night and weather. The first of these boats was the British *Lightning* of 1877—a tiny 34-ton craft, capable of making what was then the fast speed of 19 knots.

The advent of the torpedo boat caused a furor. Armchair strategists, and especially those who were opposed to heavy defense expenditures, freely predicted the certain doom of big, costly craft such as battleships and cruisers. Smaller powers, long jealous of Britain's dominance of the seas, joyously contemplated the prospect of the British Navy reduced to impotence. None of those hopes and predictions came true. Naval designers at once began to devise countermeasures: ships were redesigned to provide greater resistance to large underwater blasts; torpedo nets were provided to protect ships at anchor; and other passive defense measures were rushed to completion.

COUNTERING THE TORPEDO

More significant was the intensification of work on counterweapons which later had a great influence in other fields of war. If the swift and agile torpedo boats were to be hit before they could close to launch their torpedoes, warships had to have a greater number of smaller guns, which could fire much faster than those then in service. Hence navies began the development of "quick firers"—light and medium guns especially designed for rapid operation. If a torpedo boat should succeed in maneuvering through this rapid fire to a position from which it could launch its short-ranged torpedo, there was still a chance to upset the handling of the boat and the laying of the torpedo tubes by mowing down the torpedo boat's deck personnel with a hail of small-arms fire. Because it was obviously advantageous not only to kill exposed crew members but also to penetrate into the engine room and conning tower, automatic cannon as well as machine guns were pushed to practical perfection.

Thus the advent of the torpedo caused great acceleration in the natural development of other lines of war weapons. Ships formerly armed only with main and secondary batteries now bristled like cacti with antitorpedo batteries of "quick-firers," machine guns, and "pom-poms." Ground forces took advantage of this accelerated progress of naval ordnance and in the 1890's and 1900's the "quick-firer" came to make field artillery more devastating than ever. The utility of the machine gun was not so quickly recognized by armies. It was not until the threat of air power appeared that the automatic cannon came into its own ashore.

THE TORPEDO BOAT DESTROYER

Far reaching as were these effects of the torpedo, there were still more results. Defense of the big ships was not enough: military

science has always indicated that a vigorous attack is the best defense. Hence, in 1892 the British Navy (with chief interest in defeating the torpedo boat) created the first destroyer—properly known as a “torpedo boat destroyer.” This ship was designed to be so fast, well armed, and speedy that it could hunt down torpedo boats and destroy them before they could attack the big ships. The first destroyer—the *Havoc*—displaced 275 tons to the *Lightning*'s 34, and made 27 knots as compared to the first torpedo boat's 19. However, as the steam reciprocating engine (like that of an auto) which powered both types of craft reached its peak of development, both torpedo boat and destroyer were able to attain a top speed of 31 knots, but no more.

In order to return the larger destroyer to a position of advantage, whereby it could have greater power in accordance with its greater size, the development of the revolutionary steam turbine was pushed to fruition. In 1899 the British put into service the *Cobra*—a 370-ton destroyer powered by engines of 12,000 horsepower, as compared to the *Havoc*'s 4,200. Though the destroyer had plenty of extra power, in a long chase it still suffered, for with coal its stokers had to work furiously under difficult conditions to keep up a proper head of steam. The solution to this problem was the use of oil fuel. In 1905, the British Navy brought this epoch-making advance into general service by introducing the big Tribal-class destroyers, with 15,000 horsepower. It was only a few years before oil fuel was so developed as to affect marine engineering throughout the world.

Today the destroyer is still in existence. Modern destroyers may be as large as 2,500 tons—a far cry from the *Lightning*'s 34. They can make 45 knots with ease, and may be powered by oil-fired boilers giving engines as much as 60,000 horsepower. The U. S. Navy has more than 400 modern destroyers. Lesser nations occasionally build torpedo boats in the old sense of the word, but, on the whole, the destroyer has now assumed the role of the craft it was built to suppress.

With the introduction of the high-speed gasoline engine, however, the old concept of the torpedo boat was reborn in World War II in a new form. The new-type torpedo boat is the PT craft, or German “E” boat, deriving from the British coastal motor boats and the Italian MAS of World War I. Equipped with Packard engines, Oerlikon automatic cannon, radar, and a host of other gadgets, even the PT boat of today is far more complex and expensive than the first torpedo boat. As for the modern destroyer, its intricacies and cost make even the largest battleship of 1877 dirt cheap in comparison.

THE DESTROYER SUBMERGES

While the results of the torpedo in the fields already mentioned appear to have been extraordinarily remarkable, the principal modern

torpedo-launching craft is the submarine. Without the torpedo, the submarine would have had little value except for reconnaissance. Indeed, it was not until the perfection of the torpedo that navies really took interest in the development of the submarine. Once presented with the problem of a practical submarine, naval engineers had to throw themselves into related problems that would make the submarine work. High-powered, electric drives had to be perfected for underwater travel. More significant was the impetus given to the development of the Diesel, for it was this heavy oil internal-combustion engine, with its non-vaporous fuel, which made safe and successful submarine operations possible.

The submarine, like the torpedo boat, was hailed as the end of big navies. Cheap U-boats would rule the seas. While everyone is now aware of the infinite complexity which submarine warfare has brought to the science of war, it is now clearer than ever that a submarine force is but one arm of a navy. No better example of this is to be found than in U. S. submarine operations. While operating the world's most powerful surface and air naval forces to clear the surface of the Pacific, the U. S. Navy at the same time directed the second largest submarine fleet in the world in its mission of undermining Japanese sea power behind the surface and air navy's front. As in World War I, German submarines, comprising the world's most numerous undersea fleet, caused the Allies untold difficulty, but finally failed because they lacked surface and air support. Having inherited the torpedo boat's position as the main torpedo-launching weapon, since the outbreak of World War I the submarine has been the chief antagonist and natural prey of the modern destroyer.

No account of the effect of the automobile torpedo would be complete without mention of the torpedo bomber. The inherent efficiency of the torpedo was so marked as to give inevitable rise to this form of aircraft. Perfected in the 1920's this type of naval military aircraft has become one of the most effective weapons of war. Torpedo bombers inflicted the greatest damage at Pearl Harbor, and, on the Allied side, generously contributed to the wrecking of Japanese naval power.

To give all the ramifications of the effects of the torpedo upon war—to describe all the construction details, the fire control and detection devices which followed in its train of development—is obviously impossible. Yet all these changes imposed themselves merely upon the face of war. They did not affect basic strategy: great admirals like Nelson and Farragut would have known how to apply the principles of strategy to World War II as well as to the conflicts in which they gained their military reputations. Tactics were broadly affected; and, as it has been pointed out, so was the complexity of war, and its cost.

The example of the torpedo has been chosen because of its peculiarly military limitations in its effect on civilization. The effect of the airplane has been even more widespread in war, while simultaneously affecting civilization through the application of vast military aviation developments to peacetime pursuits. But the plane—and the tank—have also merely added to the costs and complexity of war. They have failed to simplify, cheapen, or prevent it.

THE PATTERN OF ATOMIC WARFARE

Prediction is always a ticklish matter, but it appears logical to expect that atomic warfare may have a much more pronounced effect than either the plane or torpedo. Coincident with the introduction of the guided missile, for which it may provide both the propellant and the warhead, the development of atomic fission may have an impact upon civilization similar to that exercised by gunpowder. The latter development, though exerted over a very long period, changed the aspect of social life, as well as of war. Urban centers, previously gathered within the narrow confines of high walls for defense, found such means of protection valueless against cannon. Cities and towns therefore could expand, eventually completely dispensing with circumscribing fortifications. The terrific blast effect of the atomic bomb may have similar far-reaching effects on the pattern of future society.

That the effects of atomic power in warfare may be felt more rapidly than those of gunpowder, of the automobile torpedo, and of the plane also seems apparent. Hundreds of years passed before civilization felt the full impact of old-fashioned gunpowder. The torpedo has been in existence as a practical weapon about 75 years, the plane some 30 years. Warfare, however, is as much a science as chemistry or medicine; it follows certain set laws and axioms. That atomic explosives will cause great changes is an undoubted fact, but it is equally certain that these changes will impose themselves upon the pattern of war according to established principles.

Whatever happens, the basic mission of the soldier will remain unchanged. If he perfects himself physically and mentally for his military duties, and masters the new weapons and tactical changes as they come, he will be prepared at all times to give the most effective possible service in the defense of his country. If, on the other hand, he places all his trust in "secret weapons," he and other members of his scientific center may some day find themselves placed under arrest by a rifle company arriving in disguise on a transoceanic airliner.

The Little Man



JAP UNDERCOVER INTELLIGENCE IN CHINA

Early in January 1943, a series of time-bomb explosions rocked Canton, China, in the Chang Hang Chieh neighborhood dotted by impressive buildings then occupied by Japanese military and puppet government officials: The blasts were part of a Chinese-Formosan plot to assassinate Major General Kanju Yasaki, chief of the Canton office of the feared S. S. O.—the Japanese espionage group known as Special Service Organization or *Tokumu Kikan*.

Actually, the bombs exploded but the plot failed. Warned of the plan at the last moment, the Japanese had withdrawn key personnel and important documents from the buildings. The “terrorists acting on orders from Chungking” were arrested, but the Japs had not had time to detect and neutralize the hidden time bombs. The eleventh-hour hero who thwarted the scheme—and saved the blood-smirched life of General Yasaki—was one Surumato Susio, a “little man” in the Japanese Intelligence Service.

Military personnel should become familiar with Susio’s career, for he epitomized the type of agent lavishly sprinkled by the Japanese throughout the Far East. Insight into the undercover techniques of the vast Jap intelligence system, from the standpoint of the “little man,” can be gained from the experiences of Susio. His story combines all the elements needed for security instruction.

FROM BARBER TO BATMAN TO SPY

In 1922, at the age of 5, Susio left Japan with his father and settled at Taikoku, Formosa, where he attended Kensei Primary School. Little Susio returned to Japan in 1931 to study in the Kumamoto Middle School, but a year later he ran away after a quarrel with his best friend over a girl. Susio went to live with his uncle in Tokyo and worked in the packing department of the Army Branch Ordnance Depot at Yodobashi, Tokyo. In 1933, when he was 16, Susio yanked stakes again and returned to Formosa. He became a barber, working part time with the Shinko Dramatic Company (this experience undoubtedly was to help him later in his role as spy).

Susio first worked for the Japanese Intelligence Service as a "front" employee. A Lieutenant Colonel Matsumoto, apparently impressed by the barber's personality, hired Susio in October 1936 to work in the Intelligence Branch of the Taiwan Army headquarters in Formosa. For almost 2 months Susio was constantly under strict observation; he did nothing except read intelligence summaries.

In November he was dispatched to China with another civilian for the ostensible purpose of opening a cotton waste business. They established the office in Fang Village, Nan Hai Prefecture, Kwangtung Province. The cotton waste transactions were few and not complicated. Susio's colleague was absent from the office for long intervals. Susio suspected his boss was really engaged in espionage, while Susio was left behind to "front" the business. This suspicion was confirmed later when Susio joined the Canton S. S. O.

When a wave of anti-Japanese feeling swept Kwangtung Province in March 1937, the office in Fang Village promptly closed. Susio returned to Formosa to work in the Ordnance Department of the Taiwan Army Arsenal. In June 1938, he was conscripted into the Japanese Army. After receiving infantry training, he joined the task force which landed at Bias Bay on 10 October 1938 and occupied Canton. But Susio's military career (in soldier's uniform) was short-lived. From the Kuno Task Force headquarters detachment he was transferred to the Canton S. S. O. He was discharged from the army in February 1939 and became a civilian batman to a Major Kenzo Suzuki, who was chief of the S. S. O. economic and Boryaku¹ sections.

As a batman, Susio undoubtedly learned the art of espionage from an expert. Susio worked and lived in the building of the Canton S. S. O. and was allowed out only on Sundays until 2000. He remained in this menial category for 2 years, receiving the rather high pay (for a batman) of 90 *yen* per month in addition to frequent cash bonuses from Lieutenant Colonel (promoted from Major) Suzuki.

¹ *Boryaku*, literally meaning "trickery" or "stratagem," is used rather loosely as a technical term to cover the more secret functions of a Special Service department, mainly espionage and counterespionage, including sabotage and fifth-column activities.

Susio obviously was under microscopic surveillance during this period. He apparently distinguished himself, as he not only got the bonuses but also was promoted to *Koin 1st Class* (civilian employee with rank equivalent to sergeant-major) on 8 April 1941. This promotion heralded Susio's full-fledged participation in S. S. O. operations. During the next 2 years, until his capture by Chinese troops on 10 April 1943, Susio was engaged in a series of activities which, although not necessarily requiring high-grade intelligence methods, illustrate the work of so-called minor espionage agents. This barber-batman was now a full-time spy. A study of his subsequent pursuits shows how a seemingly insignificant cog figured in the machinations of Japanese intelligence.

FOOCHOW HOTEL INCIDENT

The patiently endured years of training and observation soon were to reward Susio with his first decoration. When Foochow was occupied by the Japanese, Susio was among the agents temporarily transferred to the Foochow S. S. O. His initial missions were escorting Chinese deserters and parties of Chinese traitors who had worked with the Japanese Army.

Then came the Ta Chuwe Hotel Incident. An entire detachment of Japanese infantry (the 1st Hainan Regiment) was completely wiped out on 21 April 1941 by Chinese guerrillas near the port of Foochow. When investigation indicated an inside source had supplied vital information to the guerrillas, the S. S. O. was put on the case. Susio and two other agents went to work.

After a month of fruitless search, during which Susio had adopted three different disguises, he paid a seemingly casual visit to the Ta Chuwe Hotel in the uniform of a private soldier. There he noticed the proprietor eliciting military information from an unsuspecting and slightly tipsy Japanese noncommissioned officer.

The next morning the hotel was surrounded by Japanese, and a search revealed documents incriminating the entire hotel staff. The staff had been obtaining information for the guerrillas from the hotel's clientele. The 132 employees, including 24 women, were marched to a hill on the outskirts of Foochow and shot. For this accomplishment Susio received the 8th Class of the Order of the Rising Sun.

PREVENTION OF SMUGGLING FROM MACAO

During the summer and fall of 1941, besides working on a few odd jobs, Susio was instrumental in strengthening Japan's blockade of arms and ammunition into Free China. The Chinese were utilizing Japanese-dominated Macao as a forwarding base. Macao is a Portuguese island colony on the Pearl River Delta. The 6-square-mile city had a pre-war population of 100,000 which soared to 350,000 during



The "little man" adopted many disguises. Dressed as a soldier, he saw the hotel proprietor eliciting information from an unsuspecting drunken Jap noncommissioned officer.

World War II. Connected to the Chinese mainland by a man-made causeway wide enough for a two-lane highway, Macao is 80 miles south of Canton, 40 miles west of Hong Kong. Macao had been famed for years as a smuggling springboard to the mainland, and a steady contraband traffic always existed.² The Chinese were utilizing these well-established channels to smuggle arms and equipment through the Japanese.

Susio was one of four Canton S. S. O. agents who were dispatched to set up headquarters in Pei Ling Village on the mainland near Macao. Assisting them were 7 noncommissioned officers of the *Kempei Tai* and about 25 Chinese customs officials.

The preventive measures taken by the Japs, even in the opinion of Susio, were quite crude and merciless. Smugglers caught trying to sneak arms through customs inspections were immediately taken to a nearby improvised cemetery, made to stand on the grave site in full view of the customs house, and shot or bayoneted to death.

Smugglers who avoided customs by attempting the risky landings from their boats onto the mainland beach south of Pei Ling were riddled with fire from two heavy machine guns sited on a high wooden tower. Each day the beach had to be swept clear of dead bodies; one

² For example, opium smuggling greatly increased in 1941, since the price was 12 yen per momme in Macao and 90 to 100 yen in Canton. One momme equals 57.9 U. S. grains.

Jap soldier reported that as many as 200 were found one day. The Chinese began using women as smugglers, believing that the customs inspectors would desist from a too close personal check. But Susio and the other S. S. O. agents were seldom deluded; no qualms deterred them from a thorough examination of women.

The confiscated goods taken by the S. S. O. at Pei Ling amounted to several million yen, which went into the funds of the Canton S. S. O. to be used for bonuses, "extra expenditures," etc. Surumato Susio's work in the Macao case earned him a promotion to *Kakkan 3rd Class* (civilian rank equivalent to army second lieutenant), and his pay was boosted from 90 to 150 yen per month. The "little man" was now a big-time operator.

TIME-BOMB INCIDENT

Patient, unassuming, and meticulous, Susio next received his most important assignment: to track down the *Terodan*³ who were operating around Canton. His work leading to the thwarting of the time-bomb assassination plot, previously mentioned in this article, proved the greatest test of Susio's talents.

Susio started on the assignment in September 1942. He moved from the S. S. O. building, staying in various Canton hotels. He passed himself off as a Cantonese, and circulated through the city's blackest sections. He met some likely *Terodan* suspects, with whom he visited a brothel—there he met and purchased the freedom of his mistress—but these suspects proved harmless.

One night, after 3 months of fruitless investigation, Susio and his mistress noticed a rowdy, free-spending party of Formosans in an adjoining restaurant booth. Becoming suspicious because the Formosans did not seem the type who would normally spend so much money, Susio started a casual conversation with them, and ultimately he and his mistress joined the party. At the end of the drunken evening, Susio departed and the girl stayed with the Formosans.

Three days later the girl returned to their hotel in a rickshaw. She was semiconscious and wounded, having been shot in the shoulder and ankle while running away from the Formosans. She clutched the blood-stained fragment of a document which she had stolen from them.

Susio discovered that the document contained evidence of the plot to blow up the Japanese buildings in Canton and to assassinate General Yasaki (upon whose head, incidentally, there was a price of 5,000,000 *yuan*).

There were only a few hours to spare, but the Canton S. S. O. rounded up the plotters, including the party of Formosans, and ar-

³ *Terodan* is a hybrid word adopted from the English "terrorist" and the Japanese character *Dan* meaning "group." *Terodan* is used to denote enemy agent, saboteur, and terrorist.



One night Susio and his mistress noticed a rowdy, free-spending party of Formosans. Susio started a casual conversation, later left the girl with the Formosans.

ranged for the removal of documents and personnel from the buildings marked for destruction. The bombs duly exploded but did not cause the damage anticipated by the *Terodan*.

SUSIO RELAXES, IS CAPTURED

On 9 April 1943 Susio was ordered by General Yasaki to deliver a top secret document to the chief of Hong Kong S. S. O. The document ordered commanders of various formations to attend an important conference in the building of the Canton S. S. O. on 22 April 1943.

Susio had always used the steamer service when traveling between Canton and Hong Kong. On this occasion he chose to travel overland. He realized the hazards of running into Chinese guerrillas, but such a prospect was admittedly more of an inducement than a deterrent; his life had recently been rather unexciting. Susio was confident of his ability to pass himself off as a Cantonese. He also had several friends among the guerrillas, having played with excellent results upon their bargaining instincts in the past.

Among these guerrilla officers was a captain who on several occasions had taken Susio on conducted tours of guerrilla-held territory, during which Susio gathered data for the Canton S. S. O. In exchange, Susio acted as "safe conduct man" whenever the captain

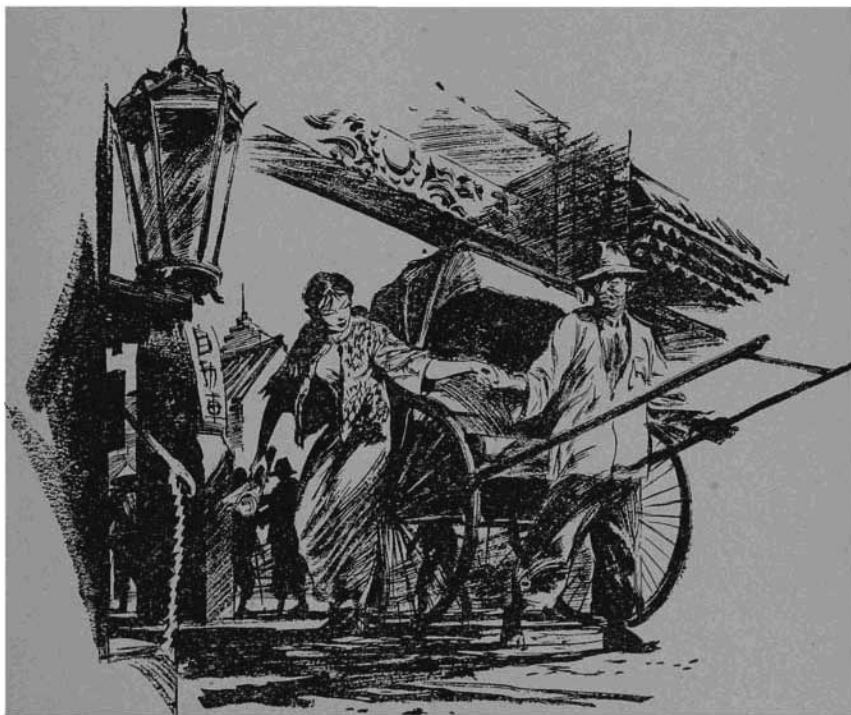
wished to visit the city. Susio believed such an "exchange of formalities" was the accepted thing, and not considered extraordinary.

Susio left Canton by train, accompanied by a Japanese friend. After staying overnight at Sheklung, they proceeded on foot along the railway tracks which ran through "no man's land." After a 5-hour trek, they were ambushed and captured. Stripped naked, the two were brought to the headquarters of the guerrilla force which, Susio joyously learned, was commanded by his captain friend. But the captain, Susio unhappily heard, was away on business.

Susio applied his dramatic flair and his command of the Cantonese dialect in passing himself off as a Chinese. He might have succeeded if his friend had had a fluent knowledge of Chinese. Susio was held on suspicion and, before his captain pal returned to rescue him, was dispatched to a higher Chinese headquarters. Here the "exchange of formalities" doctrine was nonexistent, and Susio's World War II spying career was over.

SUMMARY

Susio appears to have been an excellent example of an effective type of agent. Although he came from humble origins, he suffered no



The wounded girl returned in a rickshaw, clutching a blood-stained document telling of the plot to blow up the buildings and assassinate the Jap general.

delusions of grandeur. He remained contented with menial jobs for a long time, fully realizing that hard work and perseverance are usually required before any success can be guaranteed. His qualifications for routine intelligence work were further enhanced by his loyal sincerity, curiosity, mind for detail, and excellent memory.

That his capabilities were great is amply demonstrated by Susio's development after entering a prisoner-of-war camp in China. He stepped from his minor spy role into that of camp leader. His camp activities ranged from directing Japanese amateur theatrical productions and writing for the camp magazine, to acting as captain of a baseball team and taking a prominent part in the propaganda section of the Chinese-fostered "Japan Revolutionary Army Movement."

In contrast to Susio's unassuming loyalty, another agent of the Canton S. S. O. is reported to have been a higher ranking official than Susio and to have served with the General Staff in Tokyo. This official is described as very fussy, a confirmed braggart, detested by all who worked under him. Well-known in Japan for flower arrangement, he gave lessons in Canton to women of the Japanese Y. W. C. A., "with several of whom he entered into promiscuous relations." It is reported that he was imprisoned for 3 months during 1942 because of careless talk.

Tight-lipped and prodding, Susio appears to have been a thorough, reliable agent—neither an exhibitionistic "empire builder" nor a cunningless dolt. Yet he had his weaknesses. It was his confessed desire for excitement that caused his capture; he made the overland trip fully realizing the sea journey was far safer. Over-confidence and self-indulgence thus finished even a conservative and meticulous operative like Susio.

Susio's saga, besides reflecting light on an interesting type of intelligence worker, is another glaring illustration of the need for caution on the part of all military personnel, especially when dealing with women and liquor, and with such people as bartenders, servants, bellhops, and petty merchants. The less obtrusive people are, the more they should be noticed by security-conscious soldiers. And "security consciousness" doesn't mean slinking out of a building and peeping mysteriously up and down the street, like the hero in a cloak-and-dagger movie thriller. Nor does it mean a smug attitude in the presence of civilians, nor a sudden breaking-off of conversation to leave no doubt that the most pregnant military matters were under discussion.

Proper security consciousness means a thorough, cautious, and unassuming alertness—such as characterized a sound agent like Susio until slackness finished him. The best attitude to assume is that of a "little man" who is only a cog in a military machine, who knows what he reads in the newspapers, and who avoids discussion of military

subjects. For, as a "little man," he is in no position to speak authoritatively. Even if he should work in the Operations Division of the War Department General Staff, he can always imply that he deals only with routine office administration—that he really isn't the "big shot" the directory listing might indicate. The "little man" takes his motto from William Shakespeare:

*To beguile the time,
Look like the time; bear welcome in your eye,
Your hand, your tongue: look like the innocent flower,
But be the serpent under it.*

THEY MISUNDERSTAND US CONSIDERABLY

Concerning the American people, a Japanese prisoner of war said in the course of an interrogation: "It seems that our usual thoughts (about Americans) have been reversed . . . you are rational and act with fairness. In other words, you are gentlemen. You perform your assigned tasks with simple loyalty and your attitude is splendid. The entire Japanese nation must be informed of these matters as quickly as possible. The Japanese do not know the true America and the Americans, so that they misunderstand them considerably."



von Rundstedt Explains



"Had I been able to move the armored divisions which I had behind the coast, I am convinced that the invasion would not have succeeded."

Lack of air power, and interference from higher levels, played major roles in the defeat of the German Army after the Normandy invasion, according to Field Marshal von Rundstedt. But the former German commander-in-chief in the West has admitted that the Allied commanders outsmarted him several times to make the situation even worse.

Caught in the position of a boxer up against an opponent with both a good left hook and a good right cross, Von Rundstedt guessed incorrectly that the right cross—the invasion of the Cotentin Peninsula—was merely a feint to the landing of the left hook—an invasion of the Belgian or French coast farther north. By the time he and his successors discovered that the right cross was really the knockout blow, it was too late to save anything but remnants of the German Army in France.

A great deal of the interference from higher levels developed later during the Battle of Germany, Von Rundstedt declared, the worst instance being the Ardennes counteroffensive of December 1944 and January 1945.

"The Ardennes offensive bore my name quite wrongly," the former West Front commander protested. "I had nothing to do with it. It was ordered from above down to the smallest detail."

He thought, too, that interference from above had wrecked his earlier plans for the defense of France against the invasion. In the first place, he did not have enough troops to cover the areas in which the invasion might come, and higher officers interfered with the distribution of what he had. When it finally became necessary to shift troops around, it was too late—by that time Allied planes had such overwhelming air superiority that they blasted his reinforcements to bits, or stopped their movement by cutting communications facilities.

BASIC GERMAN WEAKNESSES

The situation immediately prior to the invasion of June 1944 was not good, Von Rundstedt said. He and his former Chief of Staff, General Blumentritt, recognized at least three basic weaknesses: their inadequate number of troops had to cover enormous stretches of coast line, some divisions as much as 35 to 40 miles; the Atlantic Wall was "anything but a wall, just a bit of cheap bluff"; and there was no counterattack reserve or so-called "Armee centrale," a strategic army under central command to counterattack where the invasion came.

Von Rundstedt, like many other German generals, said he did not control Germany's best troops. He complained that many of his best units were sent to Italy, and he asserted vigorously that it was "madness to continue the war in Italy that way."

After the collapse of Italy, "that frightful 'boot' of a country should have been evacuated, Mussolini should have been left where he was, and we should have held a decent front with a few divisions on the Alpine frontier. They should not have taken away the best divisions from me in the West in order to send them to Italy. That's my private view."

Whether he could have gotten more troops for the West, Von Rundstedt did not know. He did know that the High Command was hard pressed for troops on all sides, but nothing was ever done about it.

"It was only decent to do something" after Mussolini was reinstated, Von Rundstedt admitted, but he added, "of course it was absolutely a matter of politics and nothing else. I assume, though I have no positive knowledge, that the High Command was in favor of it."

"I though that was nonsense, too," Von Rundstedt said of the occupation of Norway. "What was the point of occupying it?"

He termed the Norwegian operation "purely a naval affair" in which he had no interest. In fact, his major interest all along was to accumulate the proper armored divisions, mobile forces which could be quickly sent where they were needed.

HIGH COMMAND INTERFERED

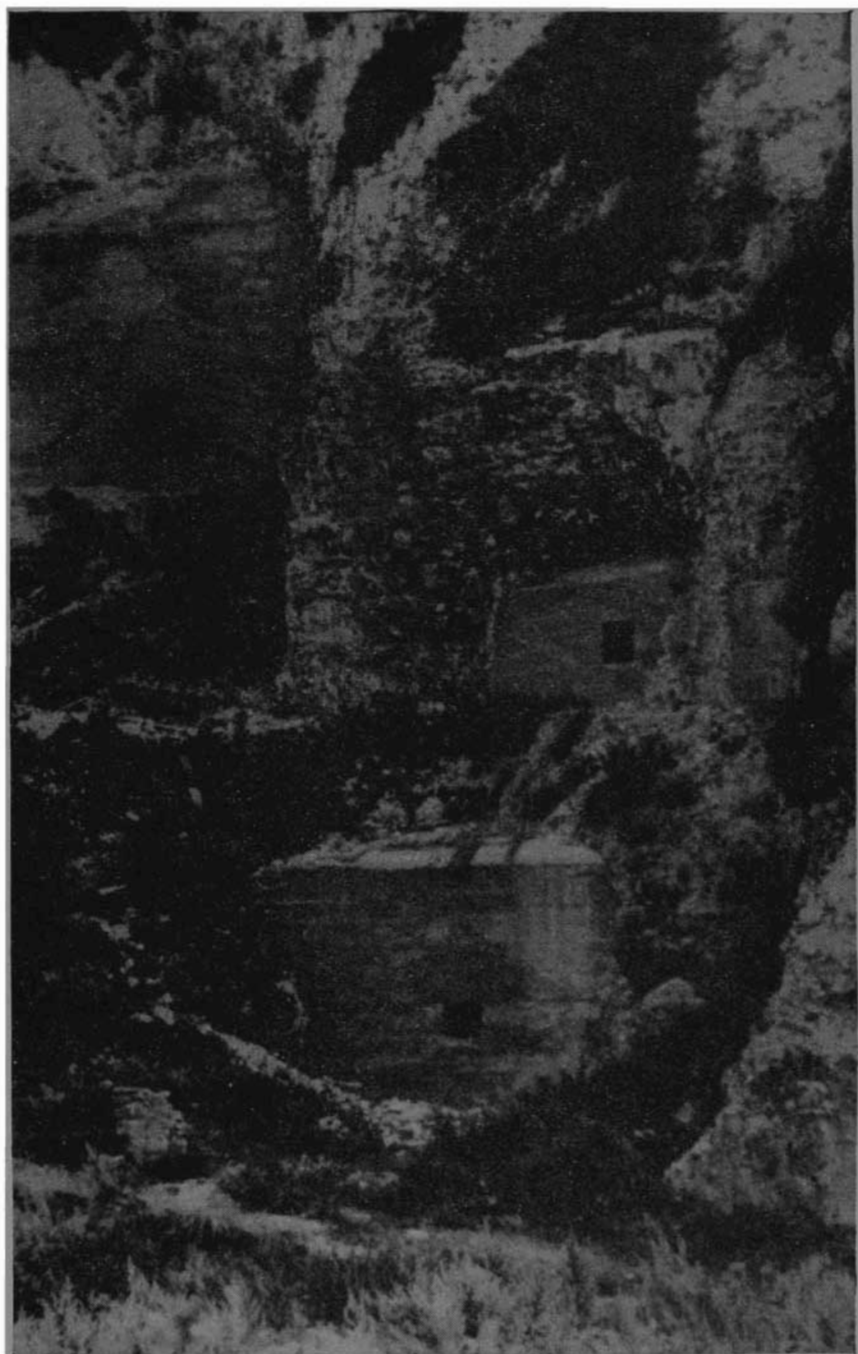
"Had I been able to move the armored divisions which I had behind the coast, I am convinced that the invasion would not have succeeded." Von Rundstedt made this emphatic statement as he told of continued interference from higher levels with the disposition of his inadequate forces. "If I had been able to move the troops, then my air force would also have been in a position to attack hostile ships."

If he had had his way, Von Rundstedt indicated that the Allies would first of all have sustained prohibitive losses during landing operations. In addition, they would not have been able, "with relative impunity," to bring up battleships close to the coast to act as floating gun batteries.

"That is all a question of air force, air force, and again air force," he commented.

The Normandy invasion would have been "like Dieppe on a big scale"—Von Rundstedt believes—if he had been able to move his armored divisions as he desired. He summarized the situation with the statement:

"We would certainly have been better off if a good many things had been different as regards the distribution of forces."



Von Rundstedt claims that the Atlantic Wall was a "mere bluff," but admitted that the French coast was more heavily fortified from the Scheldt to the Seine. Pictured are German fortifications of the more imposing type.

ATLANTIC WALL MYTH EXPLODED

"The enemy probably knew more about it than we did ourselves," Von Rundstedt said in referring to the so-called Atlantic Wall as a "mere bluff." He confessed that such a wall did exist from the Scheldt to the Seine, "but further than that—one has only to look at it for one's self in Normandy to see what rubbish it was."

According to Von Rundstedt, the wall consisted of a few pillboxes in holes in the sand so far apart that "you needed field glasses to see the next one." The only good thing was the fortresses, such as Cherbourg and Brest, but they were all fortified only toward the sea. He described the wall as "a dreary situation" south of the Gironde toward the Spanish border because "there was really nothing at all there."

All the ballyhoo about the Atlantic Wall was simply propaganda, Von Rundstedt said, but he admitted that people believed it—"at least we believed it." He thinks, however, that it was no mystery to the Allies because their air photography probably revealed the bluff.

Although a lot of material went into the defenses, Von Rundstedt complained that the Navy got most of the concrete. He pictured the German Navy as building higher and thicker roofs on their U-boat shelters every time the Allies dropped a heavier bomb.

"It doesn't suffice to build a few pillboxes," Von Rundstedt pointed out. "One needs defense in depth. Moreover, the requisite forces were lacking—we couldn't have manned them, even if fortifications had been there."

ARTILLERY WEAKNESSES

The former German commander in the West really warmed up on the subject of coastal batteries and artillery. Admitting that he was not an artilleryman, Von Rundstedt nevertheless severely criticized the mounting of the coastal guns. They were mounted as on ships, and could fire only out to sea. They were of no use to land forces because they could not fire in all directions. To make things worse, the coastal batteries included many captured guns, thus hampering the supply situation.

As if things were not bad enough, Von Rundstedt complained, the last divisions he got were very weak in artillery, some of them having only three light batteries. A good division on land should have nine light batteries and at least three heavy batteries, in his view.

CAUGHT WITH PANZERS DOWN

Von Rundstedt confessed that the Allies caught him flatfooted with their thrust out of the Cotentin Peninsula. If he had been in the position of his enemy, intent on taking Paris and the interior of France, Von Rundstedt explained, he would have landed to the left and right of the Seine and taken the shortest route.



The Atlantic Wall, said Von Rundstedt, consisted of a few pillboxes in the sand (above) so far apart that "you needed field glasses to see the next one." The only good thing was the fortresses, such as Cherbourg and Brest (below), he explained, but they were all fortified only toward the sea.



He admitted that he was puzzled because he believed a landing on the Cotentin was aimed at securing a harbor. At the same time, he could see no point in getting a harbor there because the route to the interior of France was three times as long.

Believing the most powerful thrust would come through Belgium toward the Ruhr, Von Rundstedt considered the area northeast from the Seine to be the most dangerous. For that reason, the division sectors on that coast were shorter, and the fortifications there were constructed as strongly as possible.

Adding to Von Rundstedt's belief that the landing would come further north was the fact that the Navy believed a landing could be made on the Cotentin only at high tide. Even then the rocks and reefs below the water would wreck the ships, thus making a landing extremely hazardous. Here, too, the Allies fooled him by landing at low tide and using the rocks as cover against the fire from land.

"We probably didn't know about the floating harbors," he commented in explaining that he had not considered the Cotentin a likely landing area. "I, at least, didn't. Whether the Navy knew of them, I don't know."

SECOND INVASION EXPECTED

Von Rundstedt said there were definite grounds for anticipating another invasion further north, primarily from tactical and strategic considerations. Projecting himself into the mind of the Allied high command, he reasoned: "I will land here, wait until the Germans have gathered all their forces to meet me, and then land at the other place."

An additional motive for a second landing was the fact that the launching ramps for the V-bombs were in the Belgian area—if the



The German Navy believed an Allied landing would be made only at high tide, and would be extremely hazardous because of rocks and obstacles. Instead, the Allies landed at low tide and used the obstacles for cover.

effect of these bombs was as unpleasant as German propagandists declared.

"I can't believe it was," Von Rundstedt commenced, "because so far I've seen no results of V-weapons here (in England). But it would have counted for something, perhaps, if they were as unpleasant for the English as they afterward were for us in the Eifel, when they all went back into our own lines.

"The V-weapons as such had nothing to do with us in the Army," he said. "The actual protection of them was undertaken by the Flak." He argued that he was afraid of an Allied thrust north from the Seine more because of the strategic importance of an attack toward the Ruhr and Lower Rhine than because of the V-bombs.

"A landing which for a long time we considered very likely before the invasion actually began was one to get rid of the U-boat bases—namely, Brest, St. Nazaire, and Lorient—from the rear," Von Rundstedt declared. "Then when the U-boat business collapsed so completely, we said that was no longer of interest and wouldn't come off. Attention was then concentrated more and more on the northern part."

GERMAN ARMORED SITUATION

Although Von Rundstedt could not remember his exact tank strength in France at the beginning of June 1944, he thinks he had approximately six or seven Panzer divisions, but they were spread out. Two were immediately available when the invasion came, and two others were able to come up on the first day. Another one came from Belgium, and then one came from southern France. He complained that one division never did make it from southern France because it had "some difficulties" with the Maquis.

"The defensive role played by the armored divisions near Caen during July and August was a great mistake," Von Rundstedt confessed, "but it was done on the orders of higher authority. We wanted to relieve the armored divisions by infantry, but it was impossible in the bulge in front of Caen where they were also under fire from ships' guns. You can't relieve any troops then."

Von Rundstedt's plan, which was turned down, was to withdraw the armored forces behind the Orne, form up the relieving infantry there, and then take away the tanks from in front and use them as mobile units to attack U. S. forces on the flanks. He was backed up by the senior tank commander, General Beyr von Schweppenburg, but to no avail. The armored divisions were left where they were "on the Führer's own orders."

"Whether similar orders were likewise responsible for the Avranches counterattack, I don't know," Von Rundstedt commented, "since I left on 1 July."

He said he had wanted to make a counterattack while German

forces were still north of St. Lô. His plan was to thrust between the British and American landing troops, attacking the Americans and merely screening off the British, because the terrain was more favorable and the battle prospects were better.

AIR POWER AT WORK

Systematic preparations by the Allied air forces caused the general collapse of the German defense, Von Rundstedt said. He cited three important factors.

First, there was the smashing of the main lines of communication, particularly the railway junctions. Although Von Rundstedt had planned the defense so that reserves could be moved to the threatened areas, Allied planes knocked out railway lines and made the shifting of troops impossible.

The second factor was the attack on roads and on marching columns, individual vehicles, etc., so that it was impossible to move by day. This made it extremely difficult to bring up reserves, and it also created a supply problem because fuel and ammunition could not be brought up.

Carpet bombing constituted the third factor. In certain respects, Von Rundstedt said, it constituted an intensified artillery barrage and knocked out troops in pillboxes or dug in ahead of the front line. It also smashed reserves in the rear.

Although the GAF "did what it could," Von Rundstedt pointed out that he had practically no air reconnaissance. German planes which did take to the air were outnumbered 10 to 1, and any long-range reconnaissance was "absolutely nonexistent."

"Rommel's asparagus" (beach obstacles) was "well meant," according to Von Rundstedt, but it was not much of a success because in some places the sea simply turned the obstacles around and sanded them up or rolled them away.

In reinforcing German troops fighting in the Cotentin, men were immediately withdrawn from the southern front. Troops were held on the northern front, however, because the Germans were afraid of a landing on the Belgian or French coast. As explained by Von Rundstedt, the Germans believed that "Phase I is here, but Phase II will come there."

When it became apparent later on that the Normandy invasion was the real thing, the destruction of the Seine bridges "made itself felt very unpleasantly." The reserve troops had to be detoured around or brought over in ferry boats.

THE ARDENNES OFFENSIVE

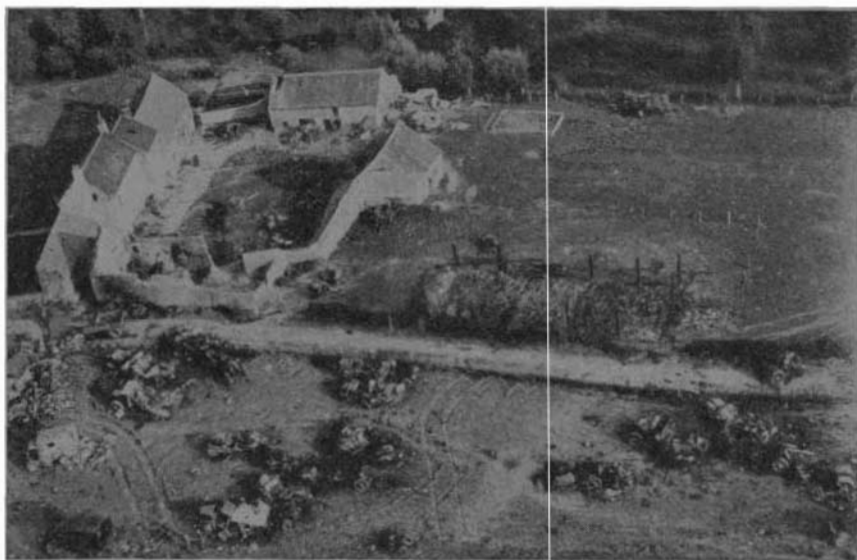
Turning to the Ardennes offensive, Von Rundstedt said that every protest on our part, including those from the late Field Marshal Model, was turned down."



"Rommel's asparagus" was "well meant," said Von Rundstedt, but it was not much of a success because in some places the sea simply turned the obstacles around and sanded them up or rolled them away.



When it became apparent later on that the Normandy invasion was the real thing, said Von Rundstedt, the destruction of the Seine bridges "made itself felt very unpleasantly." The reserve troops had to be detoured around or brought over in ferry boats.



According to Von Rundstedt, when it finally became necessary to shift troops around, it was too late—by that time Allied planes had such overwhelming air superiority that they blasted his reinforcements to bits.



If he had directed the attack, Von Rundstedt said, he would have confined himself to a smaller objective. His plan would have embraced an attack on the Aachen pocket from two sides in an attempt to destroy it.

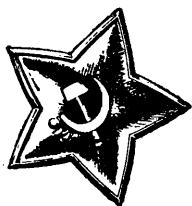
"For a far-reaching operation such as the Ardennes offensive, aimed first at the Maas and possibly still further, the forces were much, much, much too weak. The possibility of driving inland with armored divisions, with no GAF, was purely visionary. Reinforcements and supplies, with their railheads back on the Rhine, took longer and longer to move, and it was impossible to get them up. That offensive was bound to fail. There was no other possibility."

Pointing to the German offensive in 1940 from Trier toward Luxembourg and Calais, Von Rundstedt explained that a vast number of troops were available simply to cover the flanks and protect the spearhead. The forces in the Ardennes offensive were far too weak for the exercise of a comparable function, he explained, using as examples the actions at Bastogne and near Stavelot-Malmédy.

"If I do anything like that, I must have large, very large forces," Von Rundstedt concluded, "but those suggestions were not heeded and things turned out as I'd expected. The root of the whole trouble was air power, air power!"



Systematic preparations by the Allied air forces caused the general collapse of the German defense, Von Rundstedt said. One of the three important reasons for this defeat was the smashing of communication lines, particularly the railway junctions.



RED ARMY OFFICERS' CORPS

Decrees Revive Once-Hated Traditions

The Communist Party and the Soviet Government have recently taken several steps to increase the attractiveness of a postwar career for officers in the Red Army. These innovations, in drastic contrast to the avoidance of special privilege in the Revolutionary period, officially restore the traditional prestige and prerogatives of the Russian officers' corps. The officers' corps, once the symbol of despised Czarist oppression, has been gradually revived until today it is imbued with both old and new Russian fighting tradition, and enjoys a firmly rooted authority based on wartime success and the adulation of the government and the people.

In order to "free officers from personal and economic preoccupations," staff orderlies are now provided for all general officers and colonels, even those on the retired list. The new decree likewise authorizes increased rations of free food and exemptions from war taxes for the officers' corps. Previously, it was announced that separate Red Army officers' clubs were being built in military districts and at garrison posts because "under present conditions of cultural enlightenment it is necessary to have sharp differentiation and separation between officers and enlisted men." Last spring, plans to construct special apartment houses for officers and their families were announced.

These changes are a far cry from the treatment received by officers in the Red Army during the early days of the Soviet Union. During and after the Revolution in the winter of 1917-18, all ranks and grades were abolished, and there existed only two formal and nonpermanent categories—rank and file, and commanders. The commanders were distinguished from their men by no insignia other than a small mark on their sleeves (later by a collar tab pip), and the differences between their dress, pay, and treatment were correspondingly small. Socially, all Red Army men were on the same level. This entire program reflected the popular revulsion on the part of both the people and the members of the armed forces against the tradition of oppression of the old Czarist officers.

In the first days of the Revolution, officers were subject to deposition and arrest at the hands of soldiers' committees formed in their units.

Off-duty saluting and standing at attention were abolished by the First Order of the Petrograd Soviet on 14 March 1917. Even the election of officers was seriously discussed, and in order to assure the political reliability of the ex-Czarist commanding personnel, a system of political commissars was instituted in 1917. The political commissars exercised stringent control over commanders during the Civil War. (The commissars alternately lost and regained the power of veto of command decisions until 1942, when they were absorbed into the regular officers' corps.)



Although uniform regulations kept officers looking pretty much like enlisted men, prior to the war Red Army officers had already gone far in rank differentiation. These prewar uniforms may be cut like those of enlisted men, but the boots are of good soft leather, the breeches of blue serge, and the tunics of quality OD wool.

So equalitarian was the spirit of the Soviet armed forces that the very word "officer" was abolished from the Soviet vocabulary in 1918 as a hateful reminder of Czarist times. Instead, officers were referred



Under the new regulations, officers have really gone to town. This Cossack in field uniform not only wears the re-adopted Czarist-type shoulder boards, but has other traditional gear formerly taboo. Note the beard, the Cossack hat, the Cossack saber and knife. He may wear a Cossack cape and scarf-hood bashlik.



Infantry officers in the field still follow an almost world-wide practice of dressing and appearing pretty much like their men. The officer in this group is the lieutenant with the medals (center). He wears a G. I. cap and enlisted man's pocketless tunic; only his shoulder insignia and Sam Browne belt distinguish him.

to as company, division, and other unit commanders. External political conditions and the disappearance of pre-revolutionary classes in Russia gradually brought about a change in the position of Red Army officers. During the 1920's unit commanders ate at the same mess as their men and shared the Red Army clubs with them. Pay and living quarters were usually poor.

Revival of the officers' corps was started inauspiciously by the Decree of September 1935, at which time it was believed advisable to revive the prestige of the army and the authority of the commanders. Regulations were passed restoring the familiar designations of the lower grades, reviving the rank of marshal, and granting substantial increases in pay. The decree reestablished individual ranks for commanders. This decree was designed to insure the steady growth of the commanders as a group, to improve their relative standing, to give incentive to greater effort, to reward loyal service, and in particular to reinforce their power and authority. The decree established service as an officer in the Red Army as a lifelong profession, and fixed definite terms of service for the various ranks, providing appropriate distinguishing uniforms and insignia.

The purge of the Red Army in 1937 indicated that the officer class was not considered completely reliable. By 1940, however, the salute became obligatory on all occasions, and the rank of general was reintroduced.

The outbreak of the war with Germany showed the need for insuring the loyalty of the officer class to the government, as well as for increasing the respect and obedience shown to commanders by their men. Determined efforts were made to increase the number of Party



The uniforms decreed in 1943 (of which this is service dress) strongly mark the difference between officers and men, and are quite gaudy. The edges of this coat collar and front are piped in the officer's arm color (here red) ; his dress epaulets have a gold base with red piping. His dress uniform would be even more colorful.

members in the rapidly expanding officers' corps. Distinctions of rank were emphasized progressively. The political commissars again lost their veto power in 1942 and officers received many privileges, such as special discounts in state stores; separate stores were established for those of high rank.

Not until the reintroduction of the pre-revolutionary stiff shoulder boards (*pognoy*) in January 1943 was a separate classification of commanders revived, along with new and more resplendent uniforms and other accouterments reminiscent of the old days. The Decree of July 1943 finally granted the once-despised title of "officer" to Red Army commanders, and officially and for the first time in Soviet history established a distinct "officers' corps." Other steps were taken to increase the distinction between officers and enlisted men. Differences in pay and treatment rapidly increased, and today the annual pay of a private is 600 rubles, while that of a lieutenant is 7,700 rubles, or almost 13 times as much.

Since the Decree of July 1943 and subsequent measures, the glamor and prestige of the Soviet officers' corps has been confirmed in practice and by decree. The corps is firmly established, conscious of its dignity and special status, and proud of its traditions. As in the American and other armies, the Red Army officers' corps includes large numbers of men recently risen from the ranks and drawn from civil life. The Soviet press, radio, and movies have popularized and glorified the Soviet officer in the minds of the civilian population.

The recent legislation concerning orderlies and officers' clubs has for the most part legalized practices that grew up during the war.

In the early days of the war the recognition granted to officers was primarily designed to strengthen their authority. Now, Soviet policy has the avowed purpose of maintaining a strong army and improving the quality of the officers' corps. In this connection the opening of the Suvorov Schools, primarily for the children of Red Army men killed in battle, was a significant development in 1943. These military schools, which are directly comparable to the Czarist Cadet Schools, will graduate each year approximately 5,000 youths whose education since their 10th year has been largely military. Thus, it should be possible to select the majority of career officer candidates from Suvorov School students.

The army of the U. S. S. R. dates its origin from 1918, but it is deeply proud and aware of the military laurels which have in the past graced Russian arms. Soviet officers are expected to be familiar not only with World War II triumphs but with the campaigns and strategic principles of pre-Soviet heroes. Marshal Stalin told the Red Army on 7 November 1941: "Let the manly images of our great ancestors—Aleksandr Nevski, Dmitri Donskoi, Kuzma Minin, Dmitri Pozharski, Aleksandr Suvorov, Mikhail Kutyzov—inspire you in this war."

OPERATION EASTER EGG

German Plan For Sabotage Depots



Only the overwhelming speed of the Allied drive through France foiled a German plan for extensive behind-the-lines sabotage. This "Operation Easter Egg" again illustrates the necessity for even the rearmost troops of an advancing army to remain on the alert.

In 1943 the imaginative German Intelligence Service concocted Operation Easter Egg (*Ostereiaktion*), an undertaking designed to establish small hidden depots of explosives and incendiaries in numerous caches strategically located in France, Holland, Belgium, and Western Germany.¹ The German Intelligence Service intended to utilize these depots to supply German agents and native traitors. The mission of these saboteurs was to disrupt Allied rear communications after a German Army withdrawal from an area, thus aiding the German forces to recapture the lost territory.

Execution of the plan began in the fall of 1943 and was probably continued until shortly before the end of the war in Europe. Although the scheme was ingeniously laid, Admiral Canaris (Chief of German Intelligence Service), the late Heinrich Himmler, and their colleagues did little clucking up their sleeves about Operation Easter Egg because it never successfully hatched. Painfully significant to these German officials should have been the coincidence that Easter Sunday, 1945, came on April 1, the traditional All-Fools Day.

SABOTAGE NETWORK INVOLVED

To expedite the operation, which in the spring of 1944 was renamed *Verpflegungsaktion* (supply action), all German Intelligence Service sabotage groups² in the West were employed. Prior to September 1944, units were headquartered in Denmark, Holland, Flanders, and, specifically, in Paris, Lille, St. Cloud, Avignon, Bordeaux, and Le Mans. The unexpectedly swift American advance through France then forced the saboteurs to move their clandestine headquarters back to such places as Muelheim, Bad Orb, Baden-Baden, and Muenster.

Recognizing the value of native agents, the Germans recruited and hurriedly trained V-men from Danish and French traitor organizations. Regarding the caliber of these questionable mercenaries, captured German agents complained that only inferior Frenchmen offered their services, since members of these fascist and collaborationist groups were described as "not belonging to the best moral and intellectual circles." The German sabotage unit in Lille (*Abwehr Trupp 428*), for example, recruited most of its 20 to 80 French V-men from the fascist "Popular Party" and Francists. These men aver-

¹ Evidence of these sabotage depôts is still being literally unearthed in Europe; Allied troops also found many containers of supplies by the Germans in Italy, but this article is concerned chiefly with Operation Easter Egg in the West. For detailed description of sabotage kits and equipment see TACTICAL AND TECHNICAL TRENDS, No. 56, March 1945, and No. 53, December 1944.

² German Intelligence Service (*Abwehr Dienst*) was composed of three main operational sections: *Abwehr I*, espionage and collection of operational intelligence; *Abwehr II*, subversion and sabotage; and *Abwehr III*, counterespionage and security. *Abwehr II* West participated in Operation Easter Egg.



American officers are shown inspecting a sabotage box filled with supplies for German agents and V-men. The Germans laid many of these depots in Western Europe, but their saboteurs had little opportunity to utilize the supplies. U. S. forces recovered most of the dumps.

aged 21 years in age and were dissatisfied members of the lower classes. Many later sought refuge in Germany.

All agents and soldiers of groups which participated in, or had any knowledge of, Operation Easter Egg were repeatedly pledged to secrecy. They were forced to sign special security pledges. This requirement extended from the front to the inner offices of Canaris and Himmler in Berlin. (When Allied bombing of Berlin assumed dangerous proportions, there was large-scale exodus of *Abwehr* offices to Zossen and Potsdam.)

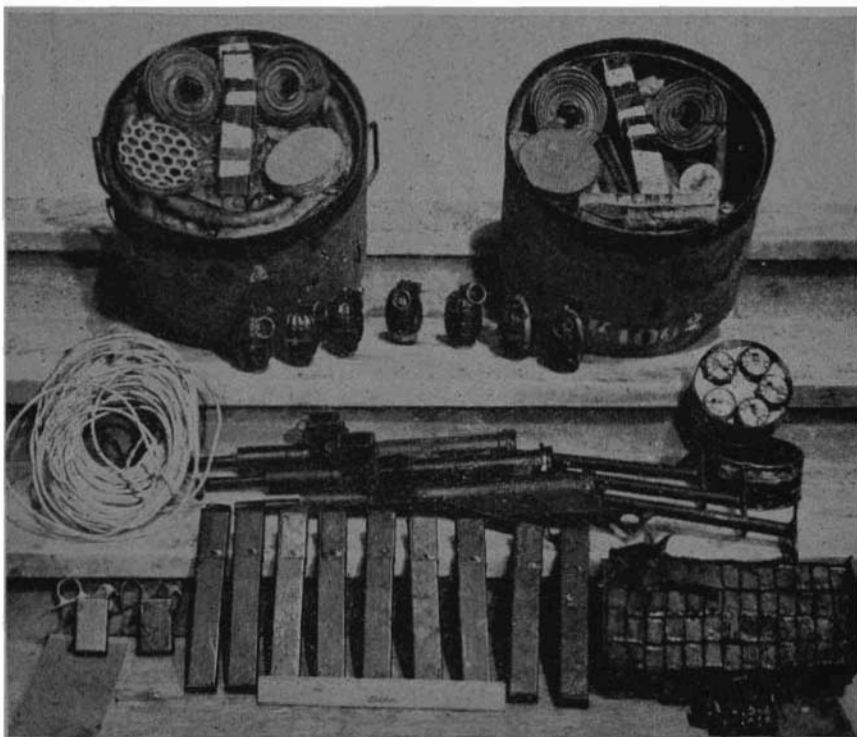
LOCATION OF THE DEPOTS

The first series of depots was installed in Brittany and Normandy. At least 70 boxes of sabotage equipment were buried in Normandy, among them one near Le Havre. Usually the sites were selected near a road passable by automobile or truck. These sites were invariably marked by a conspicuous tree, bridge, house, or similar object whose permanence as an identifying reference point could be presumed.

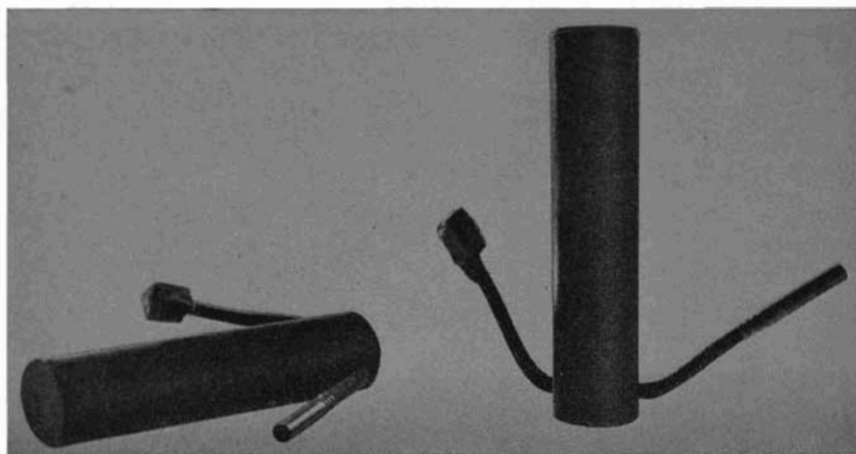
Later, depots were established in southern France, and in the Departments Nord and Pas de Calais in northwest France. The extensiveness of the depot system is further emphasized by caches in the northeast, near Dizon, Besançon, and Bar-le-Duc. It is probable that depots were also hidden in other areas of France, Belgium, and Holland, and in Germany on the left bank of the Rhine. Toward the end of 1944, according to a captured German, there was talk of establishing depots near the *Hundsrueck Hoehenstrasse* superhighway. According to oral reports, depots were also situated at Fort Carnot near Lille.

PLANNING AND LAYOUT

German policy for establishment of these depots strongly prescribed utmost secrecy. Preliminary reconnaissance of the strategic area was undertaken to select exact depot sites. The location chosen was usually near target areas, such as railroad bridges and harbors, which offered not only handy proximity to these sabotage targets but also quick recognition and good natural camouflage possibilities.



Contents of an Operation Easter Egg depot: English parachute containers with explosives, time fuzes, time pencils, fog signals, grenade detonators, cordex, and Sten guns with ammunition.



Incendiary flares were among the sabotage supplies buried by the Germans.

Single trucks made their deliveries of 50 to 100 cases per trip over a period of 2 to 3 weeks. The cargo was buried in places which were earmarked for burying sites by advance reconnaissance. These truck deliveries were made cautiously. Headquarters warned operators of the importance of equipping depots without giving French civilians the slightest knowledge of them. Therefore, it was often necessary to find an excuse to permit digging in broad daylight without arousing suspicion.

Some supply boxes used were the wooden cases dropped by British planes as part of the big metal containers of supplies for British agents. The contents of the German containers were plastic explosive, a few incendiaries, fuzes, detonators, hand grenades, and miscellaneous equipment (see photos). The Germans buried these boxes in the manner prescribed above. In the fall of 1943, an order was issued requiring every container to be buried deep enough to be covered by a layer of soil $2\frac{1}{2}$ inches deep. In the summer of 1944, the Germans apparently ran out of British boxes and started using crates of French manufacture, which were of less sturdy construction.

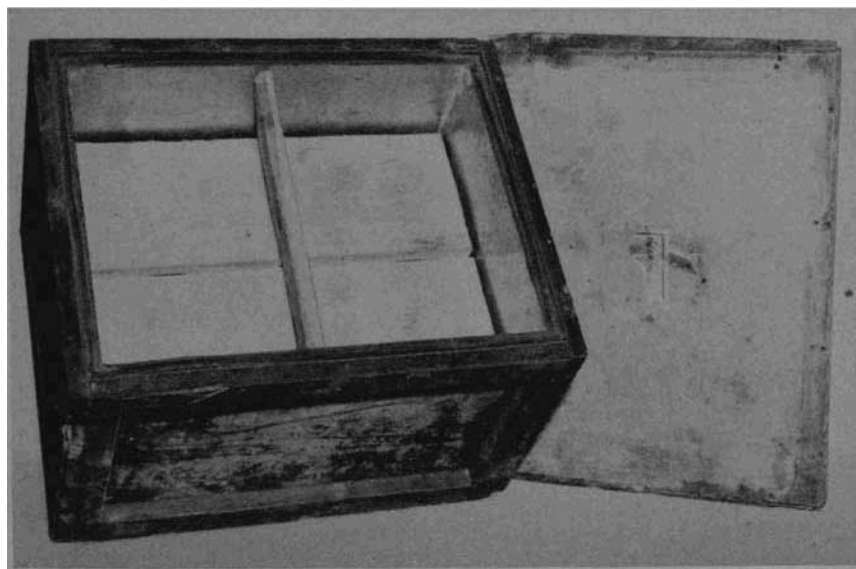
Photographs, sketches, and descriptions of the depots were incorporated at unit headquarters into depot folders in triplicate. These folders also contained data giving routes to the site, and were distributed as follows: to the *Abwehr Kommando* (battalion or group) charged with execution of the specific depot; to the *Leitstelle II* West (regional headquarters at Paris, later moved to Bad Ems and Bad Orb); and to the *Abwehr II* in Berlin. Presumably most of these folders were destroyed before Germany's surrender. The Germans planned to use the folders in training V-personnel (and possibly *Werevolves*) so that they could locate the depot sites without much difficulty.

TYPICAL UNIT

A typical unit prominently active in Operation Easter Egg was the company (*Abwehr Trupp 248*) which occupied a lot at 110 Rue de Lille in April 1944. A study of this *trupp's* personnel and activities provides a cross-sectional picture of Operation Easter Egg. The unit operated a training camp in the Chateau Blanc near Lille, on the road to Arras. Here, amidst the misleadingly serene greenery and trees of Chateau Blanc's surrounding parks, both Danish and French V-men received military training. The course included expert instruction in the handling of explosives and indoctrination in infantry duties. The V-men trainees wore German Army uniforms.

Trupp 248 made supply trips to establish depots. The unit functioned under *Kommando 213*, which was headquartered at Muenster, Westphalia, in the rooms of a seized convent. The group was concerned not with agent operations but with disguised reconnaissance and sabotage at the front.

At the end of June, 1944, *Trupp 248* had 20 to 30 V-men. In August the unit was transferred to a Paris suburb, but while it was en route to its new station, the German retreat was in full swing. American troops captured Paris on August 25. *Trupp 248* established headquarters east of Reims, and while here it also engaged in counterintelligence activity. This was performed by French V-personnel who, in civilian attire, proceeded to Reims and other neighboring towns under the pretext of trying to make contact with patriotic groups.



The strongly constructed box shown above was one of 30 filled with supplies and found buried in one area in France.

The V-men acted as agents provocateurs. Returning to headquarters, they would don their German uniforms, obtain security police reinforcements, and arrest the "enemies of the Reich." Soon, however, the advancing American troops nipped this activity, and the *trupp* retired across the German border to its new station at Muelheim on the Mosel.

Leader of *Trupp 248* was a jingoistic Captain X, whose civilian occupation had been insurance statistician. In his early thirties and divorced, he had been a senior colonel in the Nazi Storm Troops. In 1944 he transferred from the infantry to Intelligence, his first assignment being the *Abwehr* school in Kamenz. He led the company from June 1944 until February 1945 and was awarded the Iron Cross Class I.

After the retreat, when German Intelligence underwent reorganization culminating in Himmler's ascension to full control, *Trupp 248* was transferred in November 1944 from Heuhlheim to Schalkenbach. At this time the company failed when ordered to find out the name of the mayor of Aachen, and in an effort to restore his reputation Captain X planned to blow up the Luxembourg transmitter. The action was devised as a military operation with German soldiers in German uniforms. The idea was accepted by regional headquarters, and a group of soldiers was given special infantry and engineer training. At the last moment the action was canceled by higher army headquarters. Later, it was learned that the action probably would have exposed the Ardennes counteroffensive. Among other missions of *Trupp 248* was the passing through the lines of French V-men into Luxembourg and the Eifel during the winter of 1944, but most of these saboteurs disappeared. Only one or two of them returned from Luxembourg, with no major results reported.

SUMMARY

Weak point of Operation Easter Egg was that not enough V-personnel were available who were familiar with the use of the sabotage materials. Although a great number of depots were outfitted, the German Intelligence Service was handicapped by inefficient field personnel and organic friction. As the war situation deteriorated, so did the *Abwehr*. The rapidity of the Allied thrusts on the continent complicated training and operational activities of the units engaged in Operation Easter Egg, so that, ultimately, the undertaking failed to accomplish more than the burying of now-forgotten sabotage dumps somewhere beneath the soil of northern France.



JAPANESE INTELLIGENCE METHODS

The story of the Japanese intelligence system has never been completely told, and probably never will be. This article, however, gives a brief explanation of the organization and methods of Japanese espionage. Part II of this study—**UNDERCOVER INTELLIGENCE**—will be published in the April issue of the *"Intelligence Bulletin."*

Part I

The Intelligence Organization of Japan

It has been said with a reasonable element of truth that every Japanese citizen was either an agent or a potential agent of some part of the Japanese intelligence organization. Any Japanese individual could be called upon to engage in espionage, and no Jap was too unimportant to be used in an appropriate place in the intelligence system should circumstance so demand. With equal thoroughness, no item of fact was too insignificant to warrant consideration by the Japanese authorities. Yet the universal Japanese espionage was carefully channeled and brought under the control of a few main agencies of the government.

But despite attention to detail, and the rigid control exercised over all potential intelligence sources, the Japanese government did not produce an outstanding intelligence organization. While the work of intelligence agencies and individuals in the field was often good, weaknesses among higher echelons in the past caused the Japanese to make some serious strategic blunders.

THE COMBINED INTELLIGENCE SYSTEM

Not unlike the late Nazi regime in Germany, the Japanese government expected all its branches to participate to varying degrees in the collection and exploitation of intelligence. In Japan, however, the major portion of this activity was conducted by five principal agencies—the Second Bureau of the Army General Staff, the Military Affairs Bureau of the War Ministry, the Third Division of the Naval General Staff, the Foreign Office, and the Greater East Asia Ministry.

In time of war or national emergency, the establishment of an

Imperial Headquarters introduced to the intelligence organization a higher echelon than existed in time of peace. Composed of the Chiefs of the Army and Navy General Staffs, the Ministers of War and Navy, and a staff of specially selected officers, Imperial Headquarters unified the Army and Navy commands and assisted the Emperor in the exercise of supreme command. Thus the Imperial Headquarters was the Japanese equivalent of our own Joint Chiefs of Staff.

Imperial Headquarters appears to have been essentially a coordinating agency above the General Staff, the War Ministry, and the Naval General Staff. Imperial Headquarters examined and approved the over-all policies of the intelligence branches of these three military agencies, but it did not have any direct contact with their operations.

Since the Foreign Office and the Greater East Asia Ministry were not under the Imperial Headquarters, such intelligence as was collected through these cabinet branches was conveyed to the Emperor, and the armed forces, through the Japanese Premier. The bulk of this intelligence, however, was political and economic, rather than strictly military.

In theory, the control of all espionage activities, as of all other functions in Japan, was the prerogative of the Emperor. In actual practice, the Emperor naturally did not exercise direct control over the operational details of the intelligence system. So far as over-all control was concerned, the direction of intelligence matters lay with the particular clique in power. No official of the intelligence system who displeased the group that exercised the Imperial authority could expect to remain in office.

Specific direction of intelligence operations was delegated to the Foreign Minister, the Greater East Asia Minister, and the Chiefs of the Army and Navy General Staffs. Little is known about the higher coordination of these operations, but the Premier undoubtedly took part in this function. Theoretically at least, each of these officials was responsible directly to the Emperor for his actions, including his intelligence functions. None of those officers had authority over the others. The organizations that these men controlled were not tightly walled entities. Not only was there an overlapping of personnel, but the heads of these agencies knew each other well. They met and consulted as long-time acquaintances, even though at times they were rivals, and each was devoted to the best interests of the Empire as he saw them. This same meeting and consultation appeared to take place between the agencies that they controlled, and the result seems to have been a relatively sound coordination of intelligence activities.

Since the Japanese emphasized cooperative effort, the exchange of liaison officers by the various intelligence units of the government was sometimes practiced. Some intelligence and counterintelligence operations were carried out as joint projects of several intelligence agen-

cies, with the active direction of the project usually assigned to the agency most directly concerned. The use of this task-force principle tended to concentrate emphasis on vital information needs, and to some extent reduced the Japanese tendency toward duplication of effort and overburdening of the system with a mass of details.

Mutual surveillance of individual agents was common practice, particularly if those in question were of a nationality other than Japanese. But large-scale checking of one agency by another seems to have been the exception rather than the rule; the close cooperation usually found between departments obviated the necessity for such precautionary measures.

THE ARMY INTELLIGENCE SERVICE

In the Japanese intelligence system, the bulk of intelligence activity—military intelligence—was the responsibility of the Second Bureau of the Army General Staff. This Bureau, which may be considered as the rough equivalent of our G-2, War Department General Staff, was assisted to some degree by officers under the jurisdiction of the Military Affairs Bureau of the War Ministry. For an American to understand the relationship between these two agencies, he must know that, in Japan, the Army General Staff and the War Ministry were two distinct and separate organizations, each to a great degree independent of the other. If our own government were similarly organized, the War Department General Staff and the War Department each would be independent offices in the President's Cabinet. However, in the Japanese government, it was not uncommon for the Chief of the Army General Staff and the Minister of War to be one and the same individual.

Since the Army Intelligence Service was composed of officers of both the Second Bureau and the Military Affairs Bureau, coordination was quite close between officers of both agencies. This is particularly true outside of Japan where all such intelligence officers and agents usually worked under the direction of the military attaché or military commander in the area to which they were assigned. But since Army intelligence was primarily the responsibility of the Second Bureau, intelligence reports from officers under the jurisdiction of the War Ministry could have been transmitted to the Second Bureau through the ministry, or directly through the local representatives of the Second Bureau.

ORGANIZATION

The Second Bureau of the Army General Staff was divided into a number of sections, each section being concerned chiefly with intelligence activities in a specific geographical portion of the world. It is also believed that the Second Bureau exercised control over the Special

Service Organization (*Tokumu Kikan*), but this may have been directly under the Chief of Staff. This Special Service Organization, which was the chief espionage agency of the army, was engaged in undercover activities in areas which the Army had occupied or which it intended to occupy in the relatively near future. These areas were limited, so far as is known, to the confines of Greater East Asia. The geographical sections appeared to have employed the more open forms of intelligence collection, while the *Tokumu Kikan* used less obvious methods. It appears probable that the control of the Second Bureau over the Special Service Organization was not as complete or close as over the regional sections. In 1935, the Second Bureau was commanded by a major general and had about 30 officers assigned to it, with about an equal number attached. The personnel of the Special Service Organization is not likely to have been included in those figures.

The Military Affairs Bureau under the War Ministry was concerned principally with supply and procurement matters, and was not primarily an intelligence agency. Nevertheless, it was interested in technical research and received reports from intelligence officers detailed by the Second Bureau as technical intelligence observers in the Japanese Military Attaché offices in foreign countries. The Military Affairs Bureau had charge of many technical research laboratories in Japan.

The Military Affairs Bureau was divided into the Army Affairs Section and the Military Affairs Section. The second of these assigned posts to officers resident abroad and to language officers, and may have had some control over what they did. However, it seems that these officers usually operated under the direction of a superior who was assigned by, and reported to, the Second Bureau. It is possible that some of these officers detailed by the War Ministry reported directly to that organization, but such reports probably were forwarded to the Second Bureau soon after receipt.

The Military Affairs Bureau, through its subordinate Military Affairs Section, also had jurisdiction over the Military Police (*Kempeï*) organization. The Military Police were a semi-independent arm of the army, whose units in the field usually functioned under the military commander of the area in which they were operating. Although they were principally a counterintelligence agency, their duties often overlapped those of Special Service Organization field units. In such cases, cooperation and liaison between the two were complete.

The Army Intelligence Service used as its main open collection sources the military attachés, the military missions, and the technical inspectors who were sent from Japan to the various countries of the world. Nominally the military attachés were under the control of the ambassadors or ministers in the countries to which they were ac-

credited, but actually they were directed by, and reported to, the appropriate geographic subdivision of the Second Bureau of the General Staff. In addition to these duties, the attaché or assistant attaché in any country might have been the senior member and the directing head of the Special Service Organization, if it operated in his area. He also may have directed such agents as may have been employed by the consulates and the embassy or legation itself. However, the head of undercover intelligence activities was not, of necessity, the attaché or one of his assistants. If not, the directing head usually was one of the members of the staff of the consulate or embassy. From this it would seem that the Japanese preferred that the head of the undercover organization enjoy diplomatic immunity.

While military missions attempted to see everything of interest to them in the country which they were visiting, they do not appear to have made extensive use of undercover agents. But the technical inspectors, whose ostensible purpose was the purchase and inspection of materials for the Japanese Army, have engaged in espionage activities in the fields of their technical training, such as ordnance, engineering, and aviation. They were also available as couriers to carry information to Japan.

Other important sources of information, particularly in peacetime, included student officers, language officers, officers stationed with foreign units and at foreign service schools, and officers resident abroad. These officers were detailed by the War Ministry, but worked for the Second Bureau. Except for the officers resident abroad, these officers, in the main, were relatively open in their efforts to obtain information. They worked in close cooperation with the military attachés in the countries where they were stationed. Officers resident abroad (*Chuzai Bukan*), however, usually made every attempt to conceal their official connections, although their missions may have been quite similar to those of the technical inspectors, who were assigned openly by the Second Bureau. These officers resident abroad, particularly in East Asia, may have been members of, or close collaborators with, the Special Service groups.

Close coordination was maintained among all agents of the intelligence system. Liaison between the officers resident abroad and the military attachés was particularly emphasized by the Japanese.

Any Japanese nationals who traveled for business or pleasure in foreign countries were considered potential espionage agents and most of them probably were so used. Before leaving Japan, they apparently were instructed in their missions, and they reported to the local chief of the collection service in the area to which they were assigned. To cover these contacts, the head of information collection was usually an embassy or consular official to whom it would be quite normal for the civilian to go in the course of business dealings in a foreign country.

The contacts which were made by legitimate Japanese firms in the conduct of their business in foreign countries were exploited to the full for the production of information useful to the army or navy. Secret agents may have been planted in these firms to ensure more effective utilization of possible sources of intelligence. When legitimate firms did not supply the information needed, a dummy firm may have been set up. When a firm that did supply such information could not continue operations at a profit, it may have been subsidized by the Japanese Government, through the intelligence agency concerned.

The primary missions of the Army Intelligence Service were the collection of military, air (army), scientific, topographic, and secret intelligence, although political and economic intelligence was often collected incidentally. The Second Bureau of the General Staff made a primary geographic division of this work into two areas: the Asiatic and the American-European. Emphasis was placed on the countries within those areas about which the army felt the greatest need of information, mainly the Soviet Union, Germany, Great Britain, France, the United States, India, and China.

In the subordinate levels of the entire intelligence system, coordination was occasionally achieved on an area basis. In these instances, all agencies operating a given area were under the command of some senior member of one of the agencies concerned. This type of coordination was more likely to occur in peacetime and in non-Asiatic countries than in wartime in the areas of immediate Japanese military operations, but it has occurred in both situations. Since some agents appear to have had posts in more than one agency, such coordination between the various agencies has been weak or nonexistent; this seems most often to have been true in the Greater East Asia area, although attempts were made to improve such separate methods of operation without too much success.

While the Second Bureau did not have sabotage as a primary mission, its representatives in non-operational areas, or the military commander in theaters of operations, may have set up sections to engage in this practice. These sections probably were staffed with personnel other than the specialists already assigned to the collection of information. In a theater of operations, these sections would have been placed under the direction of the chief of the theater's Second Bureau.

RELATIONS WITH OTHER AGENCIES

So far as is known, other bureaus of the General Staff had no control over the policies of the Second Bureau. In peacetime, subordinate levels of the army had little influence on the work of the Army Intelli-

gence Service, as most of this work was done in areas outside of Army unit control. In wartime, however, control of the intelligence service by army commanders in the field appears to have been much closer, particularly in areas of actual military operations. This control may have also extended to intelligence operations conducted in advance of army penetration of a specific area. In areas where personnel of the Army Intelligence Service were present, there was usually close cooperation between them and unit intelligence sections. This appears to have been effected by the Special Service Organization personnel who were assigned to the Army unit intelligence sections, and who were well acquainted with members of the Army Intelligence Service in the area.

The cooperation of the Army and Navy Intelligence Services in planning an operation was sometimes close, especially between the respective Special Service groups, whose field units, particularly in coastal or island areas, have contained personnel from both branches of the service. While the Special Service groups of the two services were distinct, they appear to have operated together with considerable efficiency on relatively short notice.

The Military Police under the War Ministry cooperated directly with the civil police in determining policy and conducting operations in Japan proper.

Agents of the Foreign Office and the Greater East Asia Ministry were primarily concerned with political and economic intelligence. While cases have been noted where they have worked in close cooperation with the army and navy, their operations were, in general, separate and distinct.

OTHER INTELLIGENCE AND COUNTERINTELLIGENCE ORGANIZATIONS

Political and economic information was the primary, though not the only, intelligence responsibility of the Foreign Office and the Greater East Asia Ministry, both agencies being responsible to the Premier. In East Asia, practically all functions of the Foreign Office, including its intelligence duties, appear to have been taken over by the Greater East Asia Ministry. However, such officials as ambassadors, ministers, and consuls probably remained subject to the control of the Foreign Office.

The various aspects of Navy Intelligence were under the direction of the Third Division of the Naval General Staff, which cooperated in some cases with the army and worked jointly with it in many operations. The Third Division, of course, was interested primarily in naval intelligence, and maintained an espionage organization—the Special Service Department (*Tokumu Bu*)—which was the counterpart of the Army Special Service Organization.

A certain amount of counterintelligence and, to a much lesser extent, intelligence, was obtained by the Japanese Premier through what was the Imperial Rule Assistance Association, the political organization later known as the Japan Political Association, of which he was ex officio the head. Close liaison was maintained with the ordinary administrative channels of the government and, through them, with the "Neighborhood Associations," which the Japan Political Association indirectly controlled through retired army officers. In this manner contact was made with virtually every family in the nation to obtain data and suggestions for stimulating the war effort and to learn of "dangerous thoughts" in time to suppress them. A considerable amount of information, from which counterintelligence and occasionally intelligence of considerable value can be produced, was almost certain to be obtained. The information obtained by the "Neighborhood Associations" was the more pertinent because of the knowledge of the needs of the intelligence agencies of the army possessed by the retired army officers in the Japan Political Association.

EFFECTIVENESS OF THE INTELLIGENCE SYSTEM

From the course of World War II, it would appear that the Japanese overestimated the early defensive capabilities of the United Nations, while they underestimated, both as to time and power, the ability of the Allies to gain offensive strength and to carry out offensive action. It cannot be determined at this time how many of these misconceptions were attributable to incorrect strategic estimates, or how many were caused by political considerations and lack of personal integrity in the intelligence service and the high command. Nevertheless, the main responsibility for mistaking capabilities must lie with the intelligence service. It appears to be guilty of inexact thinking in its higher-scale production of intelligence estimates. These errors in estimating enemy capabilities have not always been in the same direction. In contrast to the overestimation of United Nations defensive capabilities, the capabilities of the Chinese appear to have been underrated prior to 1937, and those of the Russians badly underestimated before the border incidents of 1938 and 1939. The weight of evidence indicates that Japanese strategic estimates often were subject to considerable error, and that this was caused more by failure in the higher echelons than in the lower.

On the other hand, the volume and quality of technical and special information acquired appear to be quite high. The Japanese excelled in the realm of information-gathering where a prepared plan of operation could be followed with relative certainty. If the instructions given to their agents were carried out with thoroughness, the amount of information gathered about the United Nations must have been staggering. Yet there appears to have been too little effort

made in placing emphasis on the vital, as opposed to the unimportant, information. The mass of unrelated detail obtained may account in large part for the comparative unsoundness of the strategic estimates.

During peacetime, the efficiency of Japanese counterintelligence operations and security control was very good. This efficiency was made possible to a large extent by the difficulties confronting any non-Japanese agent who attempted to operate within the Empire, difficulties not only of language but of appearance. The average Japanese intelligence officer appears to have been very security conscious in his official and unofficial contacts with foreigners. Also, he was not inclined to talk "shop" with anyone with whom his official duties brought him in contact. On the lowest levels of the Japanese intelligence system, native agents might have been persuaded to divulge what they know, either under duress or through bribery. But the amount of information that they would have been able to supply was seldom of any great value in determining the methods of Japanese intelligence operations, or the objectives set for them.

The presence of the Japanese tourist with his camera and his endless questions has been a common source of friction in foreign countries. This practice would have caused much more friction had it been realized that here was an effective method of obtaining valuable information, and not a quaint example of Japanese eccentricity. On the Asiatic mainland, the violent methods of operation used by Japanese intelligence service did cause a very considerable amount of friction, not only with the Chinese and Russians, but with the Dutch, and lately with the Portuguese, as well.

So far as is known and can be judged from the results of Japanese intelligence activities, the cooperation between the various intelligence agencies of the government has been rather good, particularly among the agencies of the Army, and between the Army and the Navy. Fundamentally, the reason for this cooperation appears to lie in the Japanese predilection for reaching a decision by consultation and compromise. A decision so reached is not the responsibility of any one individual, and, additionally, tends to utilize to the maximum the knowledge of the group. Add to this the fact that there is less likelihood of a personal loss of face in the failure of a joint plan, the Japanese ability to cooperate seems relatively well explained. Close cooperation in planning, and a single headship in many of their operations, increased the efficiency of the Japanese intelligence system as a fact-gathering agency. What large-scale failures there have been seem to be chargeable to the higher levels of command.

Consequently, evidence at hand indicates that the strength of the Japanese intelligence system lay in the effective coordination and liaison between intelligence agencies, and in the excellent performance of the mechanics of intelligence operations in the lower echelons.

Career intelligence personnel with a complete loyalty to the Emperor, and a national support of intelligence methods and aims, were additional mainstays of the system.

In contrast, the Japanese have been handicapped by a love of detail for its own sake, and a lack of emphasis upon vital information. The distinctive physical appearance of the Japanese, their language, and their relative lack of ability to learn foreign language, also have prevented the development of a complete, efficient intelligence system.

COMPARISON OF JAPANESE AND GERMAN METHODS

The German intelligence system which was developed by the Nazi regime between 1933 and 1939, was, in principle, much like that of the Japanese. The doctrine of universal espionage service by the entire population is common to both, but in both countries this service was carefully channeled and controlled, though more effectively so by the Germans.

While all elements of the German nation thus had an assigned role in the over-all intelligence system, specific responsibility for the gathering and transmission of information, its evaluation, and its protection was vested in a few of the more important branches of the State and Party. Each ministry, not unlike the Japanese, had its own facilities for exploiting the types of information which were peculiarly interesting to it. But at the same time, there was provision for the prompt and complete exchange of both raw and semi-processed information, as well as intelligence, among all pertinent agencies.

In Germany, the Nazi Party dominated the government and controlled the armed forces, whereas in Japan the influence of the military was superimposed upon the Japan Political Association. Consequently, in Nazi Germany the Party Security Service and Secret State Police occupied a unique position in that they not only had access to all the information supplied through the agencies of the state (as well as through other Party agencies), but were primarily responsible for a large part of both secret intelligence and counterintelligence. In actual practice, the extraordinary instruments of power wielded by Himmler had made these organizations even more all-pervading in intelligence, as in other fields. The position of the Nazi Party Security Service was much more intimately integrated with the operations of the intelligence service than was that of any non-governmental body in Japan.

The German system of liaison and cooperation among various branches of the intelligence system seems to have been more soundly designed than in the Japanese organization, but the principles were much the same in both. In theory, the Germans had a very thorough and systematic combined intelligence system, with adequate provision for coordination of effort at all levels. In practice, however, this co-

ordination was largely lacking because of personal rivalries, political interference, and the constant fear of the Gestapo. This situation was not likely to exist to such an extent in Japan, where loyalty to the Emperor is paramount and unquestioned. Another weakness of the German intelligence system was the refusal of the political leadership to accept the judgment of intelligence experts on matters of supreme importance. Occasionally, overlapping controls contributed to general distrust and confusion.

In a general comparison between the effectiveness of the Japanese and German intelligence systems, it must be remembered that the Japanese faced handicaps in operation that the Germans did not, particularly the differences between the Japanese and their occidental opponents in appearance and language. Consequently, it appears that the German system, for all its political control, was more efficient than the Japanese organization. It is doubtful if the Japanese use of large numbers of relatively untrained and inefficient agents could balance the superior performance of the better selected and trained German operatives. The training of the military intelligence officers and officers assigned intelligence duties in the German system was better than in the Japanese, particularly in the field forces. By and large, it seems likely that the Japanese system never equaled the effectiveness of the German system at its best.

GERMAN HORSE CAVALRY AND TRANSPORT



Despite highly ballyhooed emphasis on employment of mechanized forces and on rapid movement, the bulk of German combat divisions were horse drawn throughout World War II. Early in the war it was the common belief of the American public that the German Siegfrieds of Hitler's Blitz rode forth to battle on swift tanks and motor vehicles. But the notion of the mechanized might of the German *Wehrmacht* was largely a glamorized myth born in the fertile brains

of newspapermen. Actually, the lowly horse played a most important part in enabling the German Army to move about Europe.

Public opinion to the contrary, so great was the dependence of the Nazi Blitzkrieg upon the horse that the numerical strength of German Army horses maintained during the entire war period averaged around 1,100,000. Of the 322 German Army and SS divisions extant in November 1943, only 52 were armored or motorized. Of the November 1944 total of 264 combat divisions, only 42 were armored or motorized. The great bulk of the German combat strength—the old-type infantry divisions—marched into battle on foot, with their weapons and supply trains propelled almost entirely by four-legged horsepower. The light and mountain divisions had an even greater proportion of animals, and the cavalry divisions were naturally mainly dependent on the horse.

The old-type German infantry division had approximately 5,300 horses, 1,100 horse-drawn vehicles, 950 motor vehicles, and 430 motorcycles. In 1943, due to the great difficulties in supply and upkeep of motor vehicles in the wide stretches of the Eastern Front, the allotment to divisions in that theater was reduced to approximately 400 motor vehicles and 400 motorcycles, and the number of horses was increased to some 6,300. The 1944-type divisions had about 4,600 horses, 1,400 horse-drawn vehicles, 600 motor vehicles, and 150 motorcycles.

The only fully motorized unit in the old-type infantry division was the antitank battalion. Most of the divisional supply trains were horse drawn, motor vehicles being used chiefly to transport fuel and for the workshop company. A far greater degree of motorization existed among German GHQ troops, the supply units of which were mostly motorized. Motorization of GHQ troops was to a large degree a necessity, since these units included such types of outfits as heavy artillery, for which horse draft would have been a practical impossibility. These motorized GHQ units were assigned to armies, corps, and divisions as originally required.

INDEPENDENT CAVALRY UNITS

While the horse played a big role in the average infantry division, the Germans placed no complete confidence in cavalry itself as an arm of extensive usefulness and dependability.

The extent of use of independent horse cavalry units by the Germans varied inversely with German fortunes. During the first 3 years of the war, when Germany was ascendant, such units were almost abandoned completely; they never exceeded one division. From 1943, new cavalry units were formed, and by early 1945 there were six cavalry divisions and two cavalry corps.

The marked growth of independent cavalry toward the end of the war is not to be interpreted as signifying a basic change in German



The bulk of the German Army—the doughfeet of the normal infantry divisions—moved on shank's mare. The rifle companies' transport consisted of three-horse wagons, on which the troops loaded their packs, as did this outfit on campaign in Russia in the summer of 1941.

military theory. The new units were required primarily to protect communication lines in the Balkans, where they operated in small independent groups, or to cover the flanks of armies during large-scale withdrawals on the Eastern Front. In both cases, the use of cavalry was largely dictated by lack of motor transport. In late 1943

and early 1944 German military requirements began seriously to exceed production capacities. This was also the period in which strategic bombardment began to cripple the ability of German factories to meet established production targets. The great East Prussian horse-breeding farms not being affected by B-17's and Lancasters, the availability of horseflesh continued undiminished.

The later use of cavalry units also was necessary from a military standpoint. Balkan and Russian terrain conditions favored the use of mounted units. The Balkans were mountainous, while the trackless wastes of Russia had few roads and many swamps and forests. The steppes, which might be flat and smooth for cross-country motor travel in summer, became morasses after heavy rains. Most roads were almost bottomless in spring and fall. But the Germans had numbers of light (*Jäger*) and mountain (*Gebirgsjäger*) divisions to cope with such conditions, so that cavalry units were not the only element of the German Army useful in mud and difficult terrain.

The employment of horse cavalry in an old-fashioned offensive role was confined to the early campaigns, when Germany enjoyed overwhelming air superiority. Even then, cavalry operations were on a small scale. Indications are that the German High Command had no intention of reviving the offensive use of large numbers of mounted units in normal terrain, but that it did intend, in the event of victory, to organize such units on a considerable scale for screening and reconnaissance activities in Eastern Europe and the Near East. Questions of expense and materials involved in the provision of motorized and armored equipment probably played a part in this decision, as did the ability of cavalry to live off the country, especially in agricultural areas.

HISTORY OF GERMAN CAVALRY

A review of the tradition-studded history of German cavalry provides significant background for a study of World War II experience. Prussian cavalry, which grew from less than 1,000 sabers in the early 17th century to some 6,000 by 1740, reached the peak of its fame and its most extensive and successful employment under Frederick the Great. During the Seven Years War (1756-1763) it was decisive in a number of victorious battles, both by bold charges and enveloping operations, and on several occasions it prevented disaster by covering infantry retreats. Prussian cavalry made a relatively poor showing in the war with Austria in 1866 when the cavalry corps (copied from Napoleon) was found unwieldy. It was then reorganized with greater fire power and played an important part, under brilliant tactical leadership, in the Franco-Prussian War.

In the early 20th century the German Army included 46 cavalry brigades, each consisting of two regiments of five troops each, with



Light and mountain divisions, of which the Germans had many, used great numbers of animals for transport. Their employment of footsoldiers and animals made them useful on the trackless Russian steppes as well as in difficult and mountainous terrain.

a total of 69,000 men. By 1914 there were 110 regiments with 87,000 men, but there was no further expansion during World War I. German cavalry was used successfully in World War I during the advances in the West, in Poland, and in Rumania; in these campaigns it was employed principally for reconnaissance and screening. To a lesser extent, it was also useful in conjunction with trench warfare and for covering operations during the German retreats in 1918. Occasionally, after using their horses for swift movement to critical sectors, cavalymen went into action dismounted.

Following the World War I defeat, the German General Staff organized the new *Reichswehr* so that it would be capable of rapid conversion into a large and powerful modern army when the Treaty of Versailles restrictions were relaxed or abrogated. The 100,000-man army consisted of seven infantry divisions and three cavalry divisions. Each of the latter had 5,500 men and included six regiments of five troops each and one battalion of horse artillery. This cavalry strength was envisaged to be quickly adaptable to the formation of armored and motorized units. Between 1934 and 1939 the German Army expanded to a total of 52 divisions: 35 infantry, 5 Panzer, 4 light (mechanized cavalry), 4 motorized, and 4 mountain.

The only independent cavalry unit with which Germany started World War II was the 1st Cavalry Brigade. On 19 September 1939

the cavalry arm was abolished and the "mobile troops" (*Schnelle Truppen*) were created to embrace all GHQ cavalry, reconnaissance, tank, antitank, bicycle, motorcycle, and armored infantry units. In April 1943 the term "mobile troops" was abandoned and a new arm known as "Panzer troops" was created to embrace tank and anti-tank, heavy assault gun, armored reconnaissance, armored infantry, and motorized infantry units. The cavalry, instead of being restored to its former status as an independent arm, was absorbed into the infantry, but members of former cavalry units were still permitted to wear their traditional golden yellow piping, and original cavalry officers were still allowed to call themselves cavalrymen.

GHQ CAVALRY IN WORLD WAR II

Development of independent cavalry units during World War II is best described by surveying the operations of the four following classifications: early army units (1939-41), Waffen-SS units (1941-45), Cossack units (1943-45), and later army units (1944-45).

The 1st Cavalry Brigade with which Germany started the war included two horse cavalry regiments, one mixed (partly mechanized) cavalry regiment, a horse artillery battalion, a mechanized reconnaissance battalion, and a bicycle battalion. Its T/O strength was 6,200 men and 4,200 horses. This unit participated in the Polish campaign from the first day with considerable distinction, though its exploits were almost unnoticed among the more spectacular and novel operations of the new Panzer divisions. Under the Third Army, but not subordinated to a corps, the brigade moved rapidly from the assembly area in Prussia north of Mława to the Narew River, took part in the crossings of that river and the Bug against strong resistance, and reached the area east of Warsaw on the 12th day. As part of one wing of a huge enveloping movement against the Polish capital it attacked both frontally and from the flanks and at times pushed far ahead of the main forces to disrupt enemy communications. This was the only time during the war that a German horse cavalry unit operated successfully against a determined enemy, in the "traditional" offensive role of cavalry.

After the Polish campaign, the brigade was expanded into the 1st Cavalry Division. The 1st Cavalry Division was an orthodox-type cavalry division, with motorized or semi-motorized reconnaissance, signal, engineer, and antitank battalions. It started the Western Campaign in May 1940 in the Aachen sector under the Eighteenth Army. The cavalrymen were on the right flank of the initial drive through northern and western Belgium and into northern France. The division did not see much action at the front, however, until the second phase of the campaign, when it took part with armored forces in the crossing of the Somme and Seine, and later reached the Loire near

Saumur. In these operations it played an important part in beating the enemy to vital river crossings, thus isolating large bodies of demoralized French troops. The division was able to travel 45 to 60 miles a day, and on one occasion it was credited (in a German report) with destroying 34 out of 40 attacking tanks.

In the first 2 months of the Russian campaign, when the German armies were advancing rapidly, the 1st Cavalry Division was almost continuously in action in the central sector. It had been expanded further to a total of six regiments, probably organized under three brigades. But the tactics it had mastered in Poland and France, where Germany controlled the air and enjoyed fire power and mobility superiority, were apparently not too successful when applied to the conditions in Russia. The division was withdrawn at the height of German success, sent to occupied France, and converted into the 24th Panzer Division (later to be destroyed at Stalingrad, though subsequently reformed in France). No more cavalry units above squadron size were formed until the latter part of 1943.

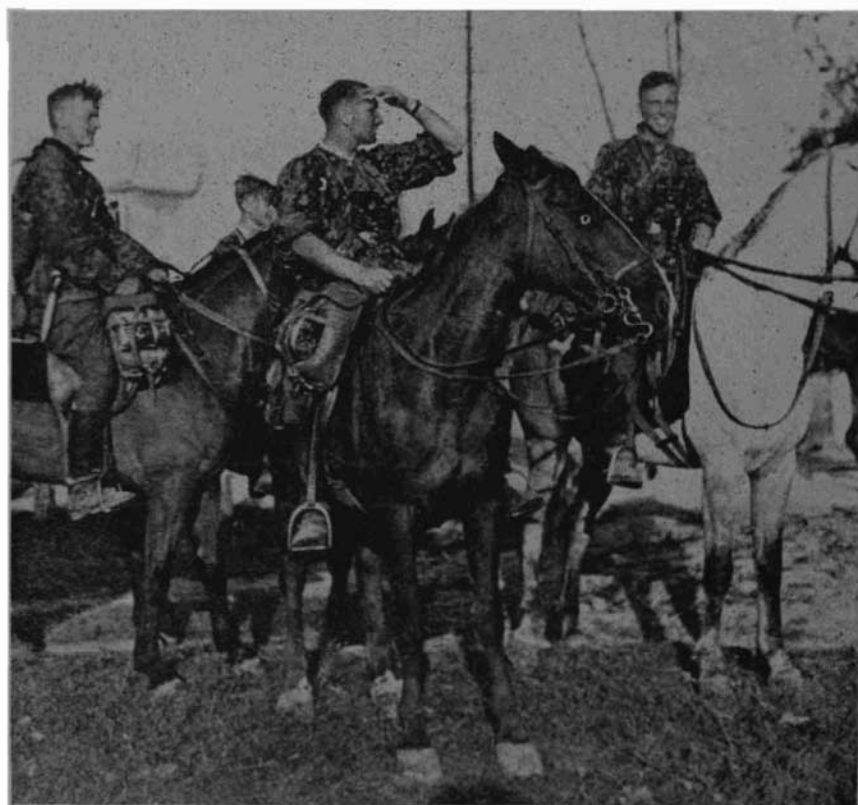
WAFFEN-SS CAVALRY UNITS

The Waffen-SS, recognized as Himmler's "elite" military organization in competition with the army, took an early interest in horse cavalry. By 1941 the General SS (the "non-military" part time branch of the SS) had 23 cavalry regiments of from five to eight purposes. Shortly after the beginning of the Russian campaign, an troops each. These were intended for equitation training and policing SS brigade of two regiments was sent to the front. It operated largely in the front line of the central and southern sectors; it also fought partisans behind the lines. In mid-1942 it had expanded and been converted into the SS Cavalry Division. A high-caliber division, it was part of the force which tried unsuccessfully to relieve the Sixth Army at Stalingrad, and besides engaging in several severe flank-covering retreats it fought in the losing battles for Kharkov and Dnepropetrovsk. Late in 1943 it was withdrawn first to Poland and then to Yugoslavia. In March 1944 it entered Hungary as the principal part of the coercive force sent there to insure that country's continued collaboration. While there, it furnished one full regiment and cadres for two additional horse cavalry regiments to form the 22d SS Cavalry Division.

Both original SS cavalry divisions were organized along identical lines, each with three horse cavalry regiments, a machine gun troop, a heavy weapons troop, and a headquarters troop; a horse artillery regiment of three light battalions; a bicycle battalion; an antitank battalion; partly motorized signal and engineer battalions; and a motorized supply regiment. T/O strength was about 10,000 men. While it operated in small groups against Yugoslav partisans, the

first SS cavalry division nevertheless retained its supporting arms. These included field artillery with thirty-two 105-mm gun-howitzers and four 150-mm howitzers; antiaircraft, with 20-mm and 37-mm guns; and thirty-five 75-mm or 88-mm antitank guns. Infantry weapons included thirty 81-mm mortars, 4 Russian-type 120-mm mortars, 213 light machine guns, and 42 heavy machine guns.

The two SS cavalry divisions operated together in the defensive battles in the difficult terrain of Transylvania. The Germans probably intended to organize them into a cavalry corps, but due to the



The Waffen-SS cavalry brigade which served in Russia in 1941 was an elite unit, and like other Waffen-SS outfits had special clothing and equipment.

exigencies of the campaign this was never accomplished and they came under the control of the IX SS Mountain Corps. The two SS cavalry divisions fell back on Budapest and were among the German units which were encircled in that city and finally destroyed in January 1945. Remnants which escaped combined with replacements to form the new 37th SS Cavalry Division, but this unit never reached

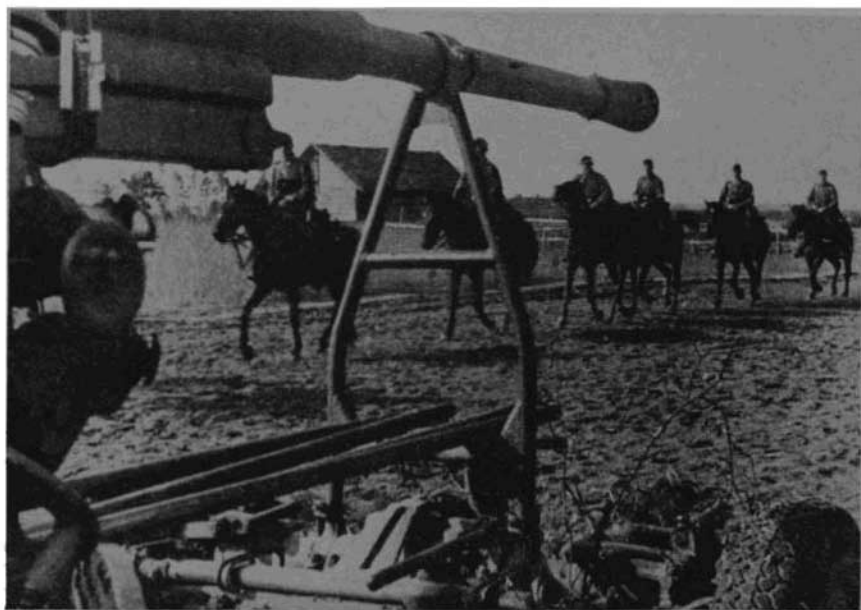


SS cavalry divisions were characterized by good armament, and had a full quota of supporting arms. This photo shows part of a machine gun troop of the original SS cavalry brigade in Russia in '41, and demonstrates the ability of horse transport to negotiate obstacles uncrossable by motors without engineer aid.

full strength and did not distinguish itself in the final confused battles against the Russians in Austria.



Cossack cavalry units in German service were weak in supporting arms, and relied upon cavalry proper for strength. These men are armed with the standard German rifle, but German Cossacks also used captured Soviet arms.



Organic cavalry included mounted troops in both the reconnaissance battalion and infantry regiment of the normal infantry division. These men wore the normal infantry uniform, except for breeches and high boots.

COSSACK UNITS

Beginning in the summer of 1942, as a part of the German policy of employing ex-Soviet personnel (prisoners of war and deserters), a number of independent Cossack cavalry squadrons and troops were formed under the First Panzer Army in southern Russia. Under German commanders, these units successfully performed long-range reconnaissance and staged raids behind enemy lines in the steppes beyond the lower Don and in the northern Caucasus. In general, however, it was found that foreign units were unreliable in the German retreats during the winter of 1942-43, and all such units were transferred to Poland.

The 1st Cossack Division was officially formed on 1 May 1943. This division was transferred to Yugoslavia in October for protection of German lines of communication, especially the vital stretch of railway between Sisak and Brod.

Its strength lay in cavalry proper, for it was very weak in supporting arms. Originally provided with two brigades and later with three, the 1st Cossack Division had two regiments per brigade. One of a regiment's two squadrons could have been bicycle mounted. Each squadron had three or four horse or cycle troops and machine gun troops. The regiment had a heavy weapons troop. Although the German commander complained to his superiors of difficulties in maintaining discipline and loyalty, and the Yugoslav population complained of atrocities committed by the division, this unit performed its specialized mission with success until the Germans began withdrawing from the Balkans in the latter part of 1944. The division was split into the 1st and 2d Cossack Cavalry Divisions. These were absorbed into the Waffen-SS, and the XV SS Cossack Cavalry Corps was set up to control them. By March 1945 the corps was in Slavonia with the new mission of protecting the left flank of Army Group E against Russian attacks.

Late in April the army group swung back rapidly to the northwest against the Austrian frontier, with this Cossack corps at the pivot. In those last hectic days of the war, the cavalry corps was characterized not only by its superior mobility, but by the intense fear on the part of its personnel of being captured by the Russians. Thus it was among the first units to reach Austria and surrender to the western Allies—only to be turned over to the Red Army.

LATE ARMY UNITS

Early in 1944 the German Army decided to revive the use of independent cavalry units as a means of covering withdrawals on the long Eastern Front. The initial brigades were upgraded into "divisions" in February 1945 and a cavalry corps established. Each

new cavalry "division" consisted of two horse cavalry regiments of two squadrons each, a horse artillery regiment of three battalions, a partly motorized signal battalion, an armored reconnaissance battalion, and an engineer troop. The artillery armament was weaker than that of the SS cavalry divisions, since only twenty-four 105's were allotted. The number of 120-mm mortars was increased to 24, with thirty 81-mm mortars, 72 bazookas, thirty-nine 75-mm or 88-mm antitank guns, 347 light machine guns, 29 heavy machine guns, and nineteen 20-mm antiaircraft or automatic cannon.

The cavalry corps controlled mechanized as well as horse cavalry units. It fought severe defensive battles throughout the summer and fall of 1944 on the Eastern Front. Its principal achievement was successfully covering the northern flank of the Second Army, which was occupying an important salient in the area of Brest-Litovsk. Subsequently the corps was shifted to a relatively quiet sector farther north under the Fourth Army and then, at the beginning of 1945, to western Hungary. The corps ended the war in the vicinity of Graz, controlling the 2d and 4th Cavalry Divisions, the 23rd Panzer Division, and the 16th SS Panzer Grenadier Division.

ORGANIC CAVALRY IN WORLD WAR II

German doctrine has always laid great emphasis on strong and aggressive reconnaissance at all echelons as a basis for dispositions and operations. This ranged from distant strategic reconnaissance by air forces and by large cavalry or motorized units to constant local patrolling by groups of four or five men from a rifle platoon.

In planning for World War II, the German High Command allotted a full, organic reconnaissance battalion to each division, except for coast defense and other static divisions. The organization of the battalion was identical in virtually all German infantry divisions and was retained without any essential change until 1943, except that there was a tendency in some units to replace the horses by bicycles. Basically, the battalion consisted of one horse troop, one bicycle troop, a heavy weapons troop, and a communications platoon. The horse troop had three platoons (each of three squads) and a heavy machine gun section. The heavy machine gun section had 21 heavy machine guns; each squad had one light machine gun. The troop's strength was 205 men, 213 horses, and 3 horse-drawn wagons.

In 1943 a new and smaller type of infantry division was introduced in which the reconnaissance battalion was replaced by a shock infantry unit known as the *Fusilier* battalion. One company of this unit was mounted on bicycles while the rest were horse mounted. It had to serve both as the divisional reconnaissance element and as the reserve battalion for all three infantry regiments, which had been reduced to



Towards the end of the war the bicycle replaced the horse to an increasing extent in organic German infantry reconnaissance units. This view shows one of the earlier bicycle troops operating in the Arctic. Note the terrain.

two battalions each. The Germans experimented with even smaller divisional setups, but this *Fusilier* battalion was restored in the 1945-type division, with the horses eliminated and the entire battalion (except heavy weapons elements) mounted on bicycles. The employment of divisional reconnaissance battalions adhered to the usual principles of modern cavalry tactics. The units were used aggressively and skillfully for counterreconnaissance, screening, flank protection, and covering withdrawals.

Though not strictly a part of the cavalry arm, the mounted platoon in the headquarters company of each infantry regiment in the German Army was used to spearhead regimental movements, for reconnaissance before and during action, and for screening and covering purposes. It consisted of three squads, a headquarters section, and a train, totaling 31 men and 31 horses. In later war operations some horses of the platoon were replaced by bicycles. This replacement was true of all divisions of the *Volksgranadier* and 1945 types.

SUMMARY

It is clear that the bulk of the German Army would have continued to be horse drawn unless much more bountiful sources of liquid fuel had become available than the Germans expected, even with full control of the Caucasus oil fields. Automotive production capacity would also have affected the degree of German motorization, even without the impact of war to complicate the procurement picture. Certainly, in an

economy like the German, provision of motor vehicles on a U. S. scale was impossible. Extensive mass production of vehicles—with its corollary rapid quantity production at low unit cost—did not exist in Germany to the extent common in the United States.

Economic factors, aggravated by the effects of air bombardment, also played a part in the revival of independent horse cavalry toward the end of the war. The horse re-entered the picture, if for no other reason than that he provided a mode of transport not suffering from related procurement shortages other than that of fodder.

Just how largely tactical usefulness weighed in the decision to re-emphasize cavalry remains an open question. The dissolution of the cavalry school, the failure to train new cavalry officers to any significant extent, and the virtual abandonment of GHQ horse cavalry during Germany's victorious surge—all suggest the trend at that time to drop the independent unit altogether. Later developments may have caused the Germans to reconsider their position. Soviet cavalry, which had suffered from some initial reverses during the early campaigns, quickly adjusted its doctrine, tactics, and technique to warfare as fought on the Eastern Front. German forces also found advantages in the employment of independent cavalry, particularly in rough terrain where partisans usually operated.

Himmler, in a confidential speech in October 1943, implied that a "mobile frontier" would be established as far east as possible at the cessation of open hostilities. German youth was to be trained and toughened in policing the native population and the "barbarians beyond." Such a situation might call for the extensive use of cavalry on the enormous trackless wastes of the steppes; Himmler probably believed, also, that the horse was a better "youth-toughener" than the effete motor vehicle. Evidently, Himmler intended to use cavalry for pacification purposes, as opposed to cavalry in full-scale combat against units comprising all arms and services.

The German lesson on the horse in transport and in cavalry units appears to be simple. If horsed units exist, they form a nucleus which can be rapidly expanded should economic and terrain conditions call for extensive use of animals. There seems to be no hard and set rule as to when an army is likely to feel the need for horsed units, since that need is based upon estimates of economic and terrain conditions and of the capabilities of the troops. From the experience of the Germans and of other foreign armies, it is evident that the horse has yet to be supplanted under all conditions.

Should Germany ever be permitted to build up any army of its own again, it is probable that it would include a horse cavalry element—if only to preserve the proud tradition of German cavalry with its motto "Paradise on earth is on the backs of horses" (*Das Paradies der Erde liegt auf den Rücken der Pferde*).



\$50,000 ON TWO LEGS

Standard Japanese value placed on American G. I.'s in China was 50,000 Chinese dollars per head. Japanese agents captured in the Kweiyang sector said they were paid on a piece-work basis, and that the March 1945 Japanese market quotation provided \$50,000 (Chinese National) reward for killing an American. Destruction of an Allied airfield runway was worth \$2,500,000 CN. This Japanese opinion of the value of American soldiers did not necessarily reflect the opinion of the soldiers themselves, considering the exchange value of the Chinese National dollar.



THE PLAN THAT FAILED

Japan's Ground Strategy From Pearl Harbor to Defeat

When the once-mighty Japanese Empire surrendered last August, an army which, for the most part, had seen but little combat laid down its arms. Faced with defeat, the Imperial General Staff still commanded over 160 divisions. But strangely, only a portion of this tremendous force took active part in the nearly 4 years of combat that followed the Japanese attack on Pearl Harbor.

In the days that followed that December 7th, it appeared to most observers that an endless horde of Japanese troops was overrunning the lands and islands of southeast Asia and the Pacific. Actually, the Japanese conquest—and the eventual attempt to hold the Allied counteroffensive—followed a strategy in which the most striking feature was the application of the principle of economy of force.

When the Imperial General Staff laid its plans for clearing the Allies from a sizable portion of the globe, it designated for this ambitious task a force of 14 divisions, of which 2 were held in reserve, and 6 tank regiments. When compared to the total manpower available, and the area to be seized, this was a small force. But considering the defensive capabilities of the U. S., the British Empire, and the Netherlands at that time, the Japanese plan appeared sound and the number of troops sufficient.

THE PLAN

Apparently the original plan envisioned an offensive conducted in three phases. That such a plan never progressed beyond the second phase may be attributed to the Japanese naval defeats at Midway and the Coral Sea. The objective of the first phase appears to have been the fortress city of Singapore and all Allied footholds between Japan and Malaya. This, of course, demanded the occupation of the Philippines and the capture of Manila, Hongkong, and the Burmese city of Rangoon. These initial objectives seized, the Japanese were free to enter the second phase which included the occupation of the Dutch East Indies and strategic portions of Borneo, New Britain, New Guinea, and the Solomon Islands. The third phase was never reached, and further Japanese intentions are a matter of speculation. However, it seems likely that the ultimate objectives of the Japanese offensive included the occupation of Midway and possibly Hawaii, and the invasion of the Australian continent.

When the Japanese offensive started, a spearhead of three divisions and two tank regiments was thrown against Singapore through Malaya. This was the Japanese Twenty-fifth Army.¹

In South China was the Japanese Twenty-third Army. With one division it captured Hongkong, while two divisions were held in reserve to counter any attempt at relief by the Chinese.

Meanwhile another army, the Fifteenth—which at first was composed of only two divisions less a task force—moved through Siam toward the Burmese port of Rangoon, at that time the unloading port of cargoes destined for China over the Burma road.

The conquest of the Philippine Islands was allotted to the Fourteenth Army which was composed of two divisions, a regimental combat team, and a reinforced brigade.

Two task forces, reinforced by Special Naval Landing Forces, seized North Borneo and Guam.

Except for the unexpected delay encountered by the Japanese on Bataan and Corregidor, this first phase of the plan was executed without much difficulty or opposition. By March 1942, hardly 3 months after Pearl Harbor, all initial objectives had been occupied. A great Empire had been seized—and this with a force roughly equivalent to the two armies we sent to liberate the Philippines in 1944–45.

As the first phase of the Japanese offensive ended, it became apparent that the Jap plan had been well conceived. So well, in fact, that it was necessary to commit only two more divisions to the execution of the second phase. Of these, one was sent to Burma, and the other to Java, which was invaded in March 1942 and seized within a week. Within a matter of days, troops from Java and Malaya took Sumatra. While other troops drove toward Ambon and Timor, the task force which had taken Guam moved on to Rabaul, New Britain, and strategic points in New Guinea.

In the 2 months that followed, an abrupt end was brought to the further execution of the Jap plan when further attempts at expansion were stopped in the naval battles of Midway and the Coral Sea. And, characteristically, these upsets also halted further effective planning by the Imperial General Headquarters. A few Jap marines moved into the Solomon Islands, and unsuccessful moves were made to take Milne Bay and Port Moresby in New Guinea. This marked the high water mark of Japanese aggression in the Pacific.

By May of 1942 the original invasion forces were rather thinly spread throughout the Pacific and Southeast Asia. Troop dispositions at that time are believed to have been the following:

Philippines—1 division and 1 independent mixed brigade.

French Indo-China—1 division and 1 independent mixed brigade.

¹ A Japanese numbered army is roughly the equivalent of a U. S. corps.

Malaya and Sumatra—3 divisions, less 1 task force.

Burma—4 divisions, less 1 task force.

Java—2 divisions.

Timor and Ambon—1 task force.

New Britain and New Guinea—1 task force.

THE COUNTEROFFENSIVE

As may be seen, the greater part of the Japanese offensive force was disposed in Southeast Asia. Apparently no central reserve had been established in the Southwest Pacific, and the Japs were caught off balance and unprepared for the U. S. attack in July 1942 on their small garrison in the Solomons. The Allied counteroffensive had begun.

In August two small task forces from the Philippines were speeded to the reinforcement of the Japanese garrison on Guadalcanal. But since one division from the Philippines had unaccountably returned to Japan, the nearest available reinforcements in strength were the troops in Malaya and the Dutch East Indies. Consequently, it was not until October that three divisions from Java, Sumatra, and South China, and two brigades from the Philippines and French Indo-China, were shifted to the Southwest Pacific. By that time a second arm of the Allied counteroffensive began thrusting its way over the mountains of New Guinea toward Buna and Japanese bases beyond, and so part of the reinforcements were diverted to meet this thrust. These troops were virtually annihilated later.

As the Japanese found it necessary to send large reinforcements into the Southwest Pacific, they began to make other changes in their troop dispositions, and to draw up a second line of defense. For this they again drew partly from their Southeast Asia garrisons until by the end of the year they had moved a division from Java to Timor, one from Malaya to the Banda Sea between Timor and New Guinea, and two divisions from China—sending one to the Wewak area of New Guinea and the other to the northern Solomons. An additional division from Korea also arrived in Wewak at that time. The Java-Sumatra-Malaya area was virtually stripped of troops by this change in disposition, and by early 1943 that area was held by only one division and six low-grade independent garrison units.

Nine months after the start of the Allied counteroffensive, the Japanese, having made this preliminary redistribution of troops in the Pacific, approached the problem of strengthening their depleted garrisons in Southeast Asia. In March of 1943, they considered the possibility of regaining the strategic initiative by launching a new offensive in another direction—India. That month the Burma Area Army was created for the over-all command of the Fifteenth Army and such other troops as would operate in that region. Two divisions from

China, and one from Japan, were gradually moved into that area. Meanwhile, the activation of three independent mixed brigades in the Andaman and Nicobar islands was ordered, and those outposts in the Indian Ocean were strengthened in early 1944. Toward the end of 1943, preliminary defensive preparations in Southeast Asia appeared to be complete when a division from Japan moved into Sumatra, and another—a reactivated division decimated on Guadalcanal—was sent from the Philippines to Malaya in October.

But while the year 1943 was principally spent in building up the defensive strength of Southeast Asia, Allied pressure in the Southwest Pacific forced the commitment of three more divisions in that area. Two of these divisions were drawn from China, while the third was another decimated division which was reactivated at Rabaul, New Britain.

Thus, between March 1942 and December 1943, Japan reinforced the original 14 divisions which initially seized its new empire. But only 7 new divisions—which included 2 of the original 14 which had been decimated in combat, pulled back, and reactivated—had been committed to action. This number, surprisingly small in view of the Japanese manpower potential, cannot be considered as having weakened Japan's defenses, or her position in China.

In the year 1944, Japan's strategic position began to deteriorate rapidly. The resurgence of Allied naval and air power in the Pacific began to be felt along the Japanese lines of communication, particularly on those shipping routes leading to the outer defenses which had been reinforced during 1942 and 1943. It is problematical whether the Japanese could have resisted longer in their outer defenses if they had been more liberal with their reinforcements during the period in which they enjoyed reasonable air and naval equality, if not superiority. At any rate, when the Allied counter-offensive began to advance in 1944 with increasing strength and rapidity, the outer defenses were penetrated, and Japan was suddenly forced to a belated bolstering of her inner defense zone.

To this purpose, the Imperial General Headquarters committed at least 13 new divisions. Three of these divisions were sent to the Southwest Pacific in an attempt to save a situation rapidly becoming hopeless. Two more divisions were sent to Burma, while the remaining eight improvidently dispatched to the Philippines, met near annihilation and utter defeat.

THE COLLAPSE

The increasing tempo of the Allied advance, and the destruction of Jap naval and air power, must have convinced the Japanese by 1945 that their only hope remained in holding their homeland and island outposts and the Asiatic mainland. After the fall of the

Philippines, the most immediately threatened area may have appeared to be Southeast Asia and South China, for two more divisions were shifted from China to French Indo-China, while another division was activated in Malaya. This reinforcement was speeded when the rapid Allied advance in Burma further upset the Japanese plans, and necessitated the strengthening of Malaya and Siam. The Japanese began to withdraw troops from the Dutch East Indies, and the major part of a division, plus other troops, were ordered to Singapore and other parts of Malaya. By this time the Japanese air and naval position had deteriorated so far that this move was not completed as rapidly or in as much strength as was intended.

Defeated Japanese troops, retreating from Burma, were rallied in Siam, and further reinforcements—a division from Sumatra, and one from French Indo-China—were shifted to that area. By this time, however, the assault on the home islands had begun with the invasion of Okinawa, and Japanese communications were in near, if not complete, collapse. Consequently, discounting the Jap troops on Okinawa and the destroyed garrisons of the Pacific islands, the disposition of the forces under the Southern Army at the time of the surrender was as follows:

Philippines—remnants of 13 destroyed divisions and 3 or 4 independent mixed brigades.

French Indo-China—3 divisions, one of which was refitting after a mauling in Burma, and 1 independent mixed brigade.

Sumatra—1 division, and 2 independent mixed brigades.

Burma—7 decimated divisions, and 3 independent mixed brigades.

Java—2 independent mixed brigades and miscellaneous troops withdrawing to the mainland.

Timor and Ambon—small garrisons only.

New Britain, New Guinea and the Solomon Islands—8 divisions, most of which had reached near annihilation.

Siam—4 divisions, 1 independent mixed brigade, and the remains of some units which had retreated from Burma.

Andaman and Nicobar islands—3 independent mixed brigades.

Banda Sea—3 divisions, and 2 independent mixed brigades.

Malaya—2 divisions.

This force of about 40 divisions, plus a number of independent mixed brigades and auxiliary troops, totaled about 720,000 men in the Southern Army. With the exception of the forces in China and the home islands, it represented, at the end of the war, the great bulk of those Japanese troops which actively opposed the Allies in the Pacific. Yet these soldiers were hardly a sixth of the mobilized ground forces of the Japanese Army.

With their homeland on the verge of invasion, the Japanese still had 57 effective divisions in Japan proper, and more were mobilizing.

Manpower, even on the day of surrender, was never a serious problem with the Japanese. But with the loss of her naval and air superiority in the Pacific, Japan lost the means of moving and supporting her armies. Thus immobilized, the greater part of the Japanese manpower was forced to sit idly by while the Allied counteroffensive carried the war to Japan.



The German MOUSE

Super-Super-Super-Heavy Tank Became Hitler's White Elephant

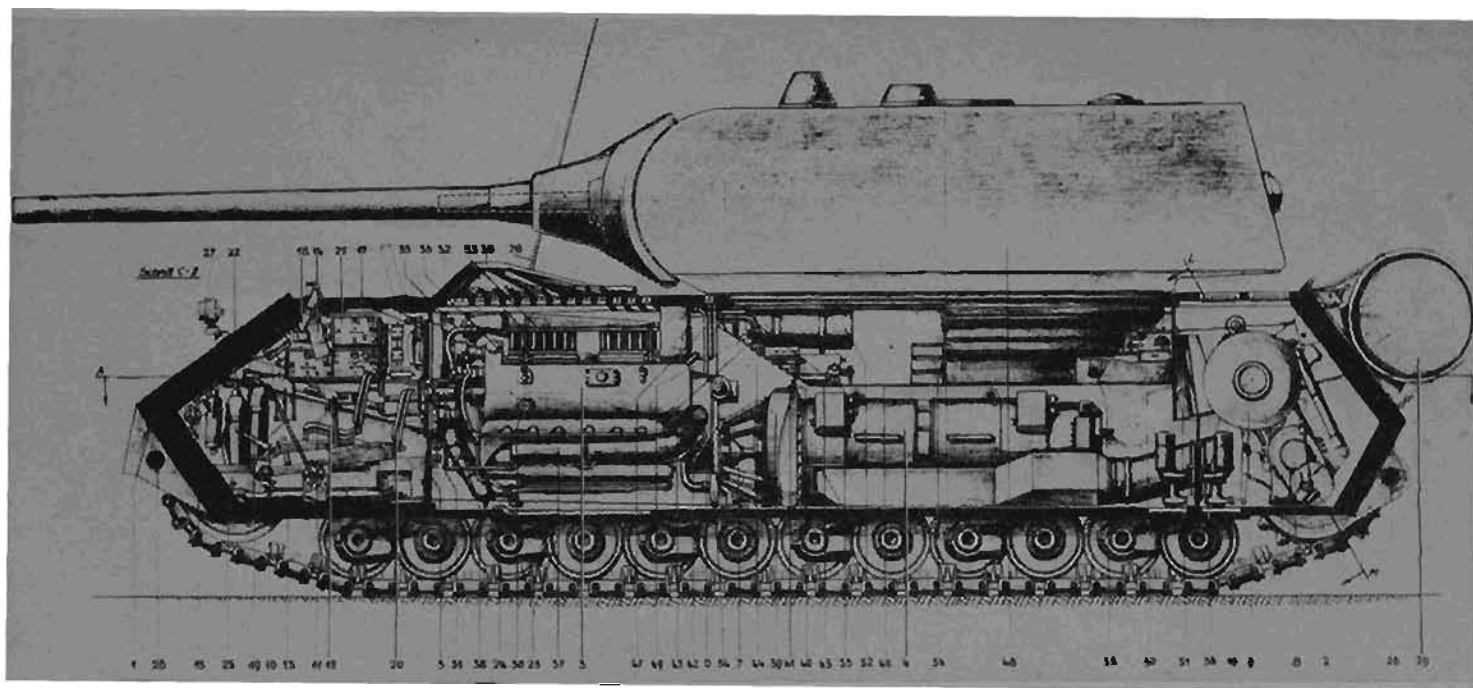
One of the subjects of liveliest controversy during the Allied invasion of France was the heavy tank—the 50-ton Pershing, the 62-ton Tiger, the 75-ton Royal Tiger. Were these worth their weight? Did they gain—in protection and fire power—as much as they sacrificed in mobility? Adolph Hitler's mind was presumably made up on this point. A pet project of his, which few were aware of, appears to have been a superheavy tank that would have dwarfed even the Royal Tiger. Dubbed the Mouse, this behemoth of doubtful military value was to weight 207 tons, combat loaded. Two were actually built, although they were never equipped with their armament.

The Mouse is an amazing vehicle, with spectacular characteristics. The glacis plate up front is approximately 8 inches (200 mm) thick. Since it is sloped at 35 degrees to the vertical, the armor basis is therefore 14 inches. Side armor is 7 inches (180 mm) thick, with the rear protected by plates $6\frac{1}{4}$ inches (160 mm) thick. The front of the turret is protected by $9\frac{1}{2}$ inches (240 mm) of cast armor, while the 8-inch (200 mm) thick turret sides and rear were sloped so as to give the effect of 9 inches (230 mm) of armor.

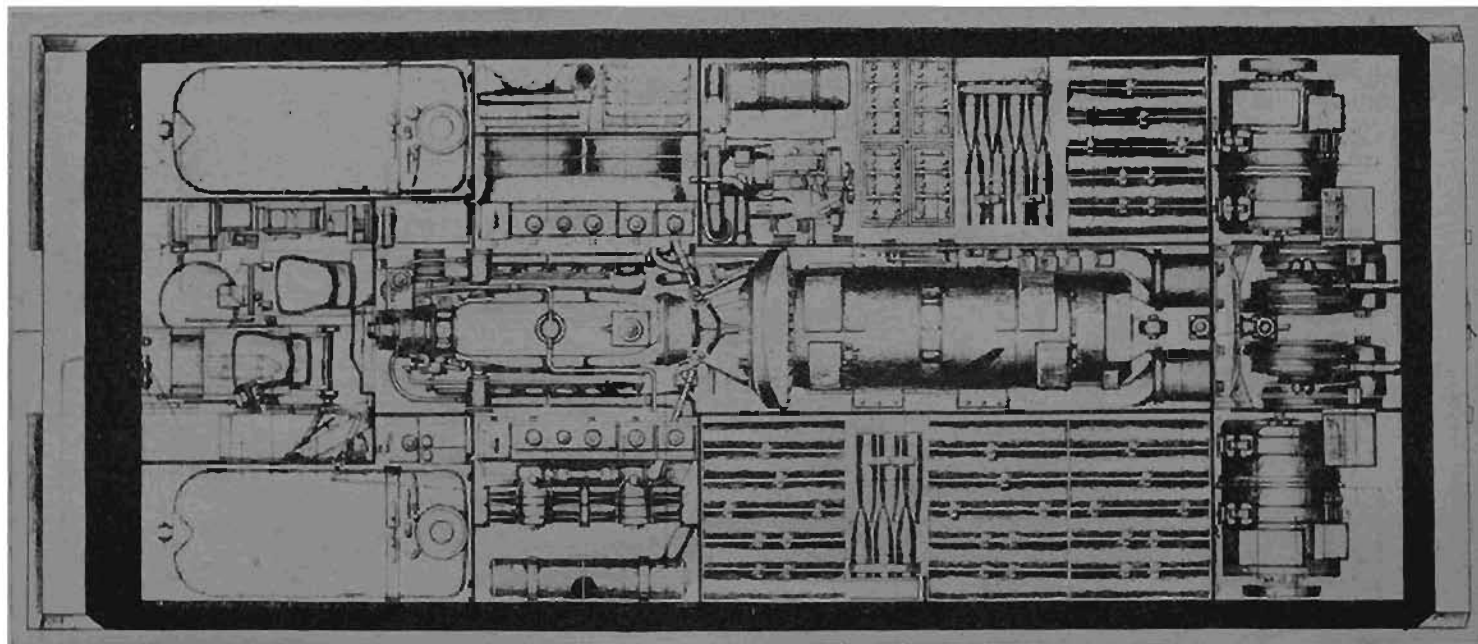
ARMAMENT

For the main armament, a pea-shooter like an 88-mm gun was ignored. Selected instead was the powerful 128-mm tank and anti-tank gun, which was later to be replaced by a 150-mm piece 38 calibers in length. (The standard German medium field howitzer *15 cm s. F. H. 18* is only 29.5 calibers in length.) Instead of mounting a 7.9-mm machine gun coaxially, the Mouse was to have a 75-mm antitank gun 76 calibers in length next to the 128- or 150-mm gun. A machine cannon for antiaircraft was to be mounted in the turret roof, along with a smoke grenade projector.

In size, the Mouse was considerably larger than any German tank. Its length of 33 feet made it nearly 50 percent longer than the Royal Tiger. Because of rail transport considerations, its width was kept to 12 feet (that of the Royal Tiger and Tiger). A 12-foot height made it a considerable target.



This German drawing shows a sectionalized elevation of the Mouse hull. The following salient features may be distinguished: driver's seat (20) and periscopes (14 and 18); radio operator's seat (12) and radio (21); radio antenna (28); air intakes for main engine (30); main engine (3); generator (4); the right motor of the two electric motors driving the sprockets (9); auxiliary fuel tank (29). The coaxial 75-mm gun is on the right of the turret; its position relative to the 128-mm gun is shown in dotted outline.



A sectionalized plan view of the Mouse hull gives another view of many of the features shown in the first illustration. The driver's and radio operator's seats (left) are flanked by the main fuel tanks. Just to their rear is the main engine, flanked by air pumps and radiators. Further to the rear is the generator, with ammunition storage in the sponsons on either side. In the sponson on the front right of the generator is the auxiliary engine, with storage batteries to its rear. To the rear of the hull, also in the sponsons, are the motors furnishing the electric drive. The actual transmission is in the deep part of hull between the motors, behind generator.

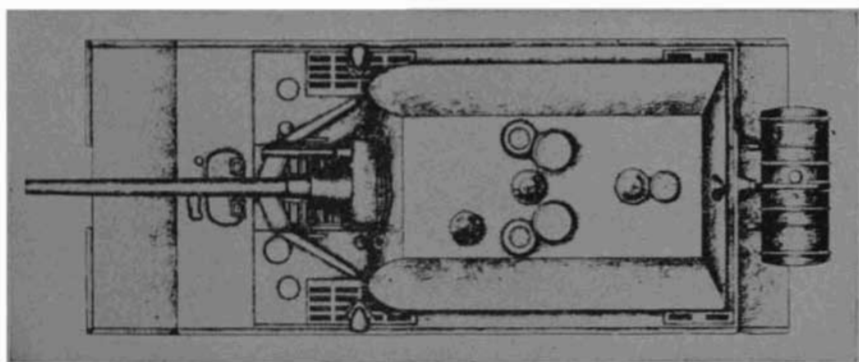
In order to reduce the ground pressure so that the tank could have some mobility, the tracks had to be made very wide—all of 43.3 inches. With the tracks taking up over 7 of its 12 feet of width, the Mouse presents a very strange appearance indeed from either a front or rear view. With such a track width, and a ground contact of 19 feet 3 inches, the Mouse keeps its ground pressure down to about 20 pounds per square inch—about twice that of the original Tiger.

POWER PLANTS

Designing an engine sufficiently powerful to provide motive power for the mammoth fighting vehicle was a serious problem. Though the Germans tried two engines, both around 1,200 horsepower (as compared to the Royal Tiger's 590), neither could be expected to provide a speed of more than 10 to 12 miles an hour. The Mouse can, however, cross a 14-foot trench and climb a 2-foot 4-inch step.

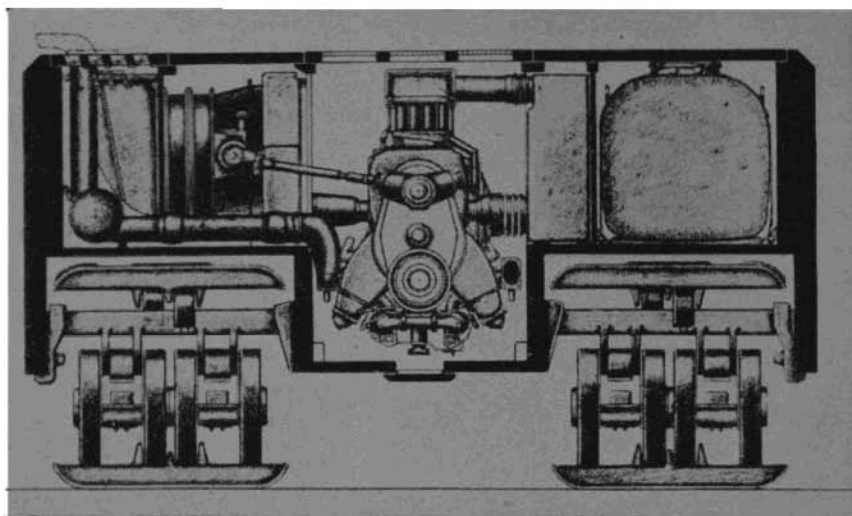
Whatever the military possibilities of the Mouse might be, it certainly gave designers space in which to run hog wild on various features which they had always been anxious to install in tanks. One of these gadgets was an auxiliary power plant. This plant permitted pressurizing of the crew compartment, which in turn meant better submersion qualities when fording, and good antigas protection. Auxiliary power also permitted heating and battery recharging.

One of the fancy installations was equipment designed for fording in water 45 feet deep—a characteristic made necessary by weight limits of bridges. Besides sealing of hatches and vents, aided by pressurizing, submersion was to be made possible by the installation of a giant cylindrical chimney or trunk, so large that it could serve as a crew escape passage if need be. The tanks were intended to ford in pairs, one powering the electric transmission of the other by cable.



The Mouse was as vulnerable to close-in attack as any other tank, if not more so. The large hull openings were a particular disadvantage. Note their extent: the grills of the engine access hatch, the grilled air vents which flank it, and the grills under the rear of the turret, which cool the electric motors.

The auxiliary fuel tank on the rear was a considerable fire hazard.



The size and weight of the Mouse made necessary extremely wide tracks in relation to hull width. This view also shows half of the engine air-cooling system (left), and rear of right fuel tank, with an oil tank just to its left.

The electric transmission was in itself an engineering experiment of some magnitude. This type of transmission had first been used on the big Elephant assault gun-tank destroyer in 1943, and was considered by some eminent German designers as the best type of transmission—if perfected—for heavy tanks.

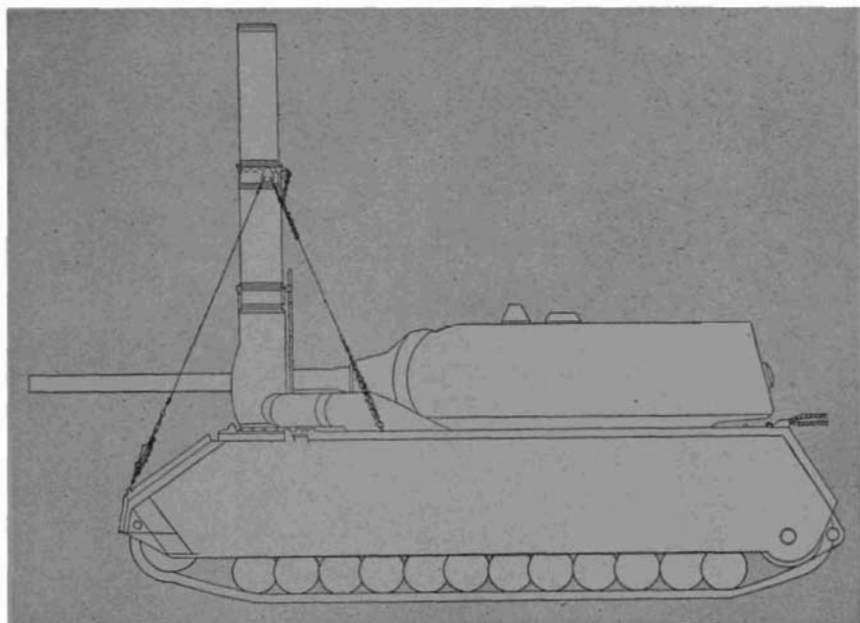
Another interesting feature of the Mouse from the engineering point of view was the return from torsion bar suspension—such as was used in the *Pz. Kpfw. III*, the Panther, the Tiger, and the Royal Tiger—to a spring suspension. An improved torsion bar design had been considered for the Mouse, but was abandoned in favor of a volute spring type suspension.

WHY THE MOUSE?

Just why the Germans wanted to try out such a monstrosity as the Mouse is a question to be answered by political and propaganda experts. Whereas such a heavy tank might conceivably have had some limited military usefulness in breakthrough operations, it was no project for Nazi Germany experimentation in 1943, 1944, and 1945. For not only did German authorities waste time of engineers and production facilities on the two test models, but they even went so far as to construct a special flat car for rail transport.

The drawbacks inherent in such a heavy tank are patent. Weight not only denies practically every bridge in existence to the Mouse, but it impedes rail movement unless railways are properly reinforced at bridges, culverts, and other weak points. Fording to 45-foot depths

would have solved many of the stream-crossing problems in Europe, but it seems that the Mouse could actually cross in water no deeper than 26 feet. Though sitting in a rolling fortress, the six men of the Mouse crew are practically as blind as in any tank. Because of low speed and high silhouette their vehicle would be most vulnerable to hits. Since it is reasonable to suppose that heavily fortified, static positions suitable for attack by a Mouse would also be fitted with very heavy, high-velocity guns capable of antitank fire, the even occasional combat value of the Mouse comes into question. The German 128-mm



The Mouse was designed to ford up to 45 feet of water. To do so, the tank was made watertight. A trunk was fitted over the hull escape hatch, and trunk extensions bolted over the engine vents. The trunk contained an escape ladder, and was divided into three sections, the number used varying with water depth. A second Mouse supplied electricity to the fording Mouse motors through a cable attached to the rear, as shown.

Pak 44 (also known in modified forms as the *12.8 cm Pak 80*) is reputed to be able to penetrate 7 inches of armor at 2,000 yards. Since the Germans actually had their *Pak 44* in service in 1945, when the Mouse was not yet in the production stage, it would appear that the Germans had the antidote before the giant tanks were ready. Moreover, in the later days of the war, a rolling colossus like a Mouse would have been almost impossible to conceal, and would have fallen an easy prey to air power.



German engineers, concerned over the effect of turns upon track performance, made this electric-powered, remote controlled, large-scale wooden replica.



A head-on view of the Mouse model affords an idea of the formidable appearance of the original Mice. Note the exceptional width of the tracks.

The psychological factor thus appears to have played a large part in the demand for construction of the Mouse. The German Army would never have desired such a tank, especially in 1942 when its design was apparently initiated. On the other hand, it would have made lurid headlines and Sunday supplement copy in both Allied and German press circles. But whatever the public reaction might have been, it seems questionable that the Mouse could have exerted any psychological effect on Russian, British, or American front-line troops unless the Germans possessed almost overwhelming strength, as they did when they crushed the Maginot Line in 1940. In 1944-45 it would have been too easy a mark for Allied gun and planes the first instant it appeared.

MICE OF THE FUTURE

The appearance of such a vehicle in the opening phases of a future war is not to be entirely discounted. When Red Army armored units counterattacked German forces advancing northward toward Leningrad in 1941, the Soviets effected a substantial surprise and just missed obtaining a considerable victory by throwing in for the first time heavy 46-ton KV tanks backed by 57-ton modified KV's mounting 152-mm tank guns in their turrets.

The first days of a war are a time of uncertainty. This is a period when peacetime armies are proving themselves, when their personnel are still anxious to determine the validity of their matériel and tactical doctrines, when they are anxious to discover what the enemy is like. Rumors grow fast, and untried men are likely to be impressed with the mere report of the size and gun power of a superheavy tank. Officers and noncoms should therefore be aware of the possibility of encountering such colossal tanks. They should see that their men know the deficiencies and real purpose of outlandish vehicles of the class of the German Mouse, and that they do not attribute to these vehicles capabilities out of all proportion to their actual battle value.

Japanese Military Medicine



The collapse of Japanese medical care, under the strain of combat operations, was a factor contributing to the defeat of Japanese troops during the Allied island-hopping movement northward in the Southwest Pacific operations. Health considerations were particularly significant in determining the outcome or cost of the following campaigns, listed in order of estimated importance of the health factor: Kokoda Trail; Guadalcanal; Bougainville; Western New Britain; the Admiralties; Lae-Salamaua; Buna-Gona, and New Georgia-Rendova.

Patients hospitalized during the Buna Campaign had a very high mortality rate, and on Guadalcanal the margin between victory and defeat was small until malaria, beri-beri, and enteritis so weakened the Japanese soldier that defeat was inevitable. It is estimated that of the 42,000 Japanese believed to have been on Guadalcanal, well over half perished from disease or starvation, and that fully 80 percent of the wounded died because of inadequate care, lack of medical supplies, or inability or unwillingness to evacuate them.

KOKODA TRAIL

Probably of all Pacific operations, the Japanese attempt to take Port Moresby by overland march from Gona over the Kokoda Trail was affected most decisively by medical factors, although, from the point of view of numbers of men involved, it was a minor campaign.

About 3,000 Japanese had the mission of traveling by foot the 140 miles of jungle trail from Gona to Port Moresby, crossing the 10,000-foot Owen Stanley Mountains on the way. The expedition set off late in August 1942, each man taking his arms, ammunition, and what rice he could carry, with the expectation of supplementing the meager rations by living off the country.

Within 3 weeks after arrival in New Guinea, a quarter of the men were afflicted with beri-beri, and within 5 weeks, over half. Men commenced to drop out within a few days of departure from the coast. After penetrating a distance into the jungle, it became impossible to send back those taken sick, and many were left along the trail to die. The force was sufficient to overrun the small Australian outpost at Kokoda, and pressed on up the northeastern slope of the Owen Stanley Range. The greatest attrition took place during this phase of the march. The original stock of rice had long since been exhausted. There were few native gardens in the rugged country traversed, and a large part of the force's time and energy was dissipated in scouring the jungle and cliffsides for food, which was never found in adequate quantities. Such a large number died of starvation and beri-beri during the climb that only a handful of the hardiest succeeded in crossing the pass. A few made their way to within 40 miles of Port Moresby, but were so weak and few in numbers that it was no problem for the Australians to dispose of them. Singly and in small groups, surviving stragglers tried to make their way back to Gona, but few arrived. Probably not more than 50 men survived out of the entire group. The vast majority died of beri-beri or starvation, some from malaria, and comparatively few in battle. The commanding general of the Japanese force was among those who perished on the march.

GUADALCANAL

The Guadalcanal campaign was extraordinary in that it, without doubt, was the major campaign affected most markedly by medical factors. Although both sides were afflicted and weakened by disease, Japanese forces suffered far more than their opposition. In view of the closeness of the decision in some of the engagements, the narrow margin by which enemy recapture of the air field was averted, and the near-success of some of the major enemy land attacks, the narrow margin of failure might have been converted into success, and U. S. troops might have lost the air field in spite of ultimate Allied naval supremacy in the area—if the enemy had been able to keep his forces in good physical condition.

It is well established that the Japanese on Guadalcanal suffered from malaria far more severely than did U. S. troops. Indications are that virtually every enemy soldier who landed on the island was smitten by the plasmodium within 4 to 6 weeks after landing. Not



The sick who were treated were ordinarily laid out on mats or on the ground in the jungle, and sometimes given some scant shelter by means of palm thatch.

only was the incidence almost universal, but the severity of the infection was far greater than in U. S. forces. As a consequence of the extreme malignancy of malaria among the Japanese troops, the death rate was extraordinary and disastrous, probably amounting to more than one-quarter of the entire force by the end of the campaign.

Some reasons for the virulence and extent of this malaria can be surmised. The Japanese operated for the most part in dense jungle and in swampy areas. U. S. forces chose open country, coconut groves, or grassy ridges whenever possible. The enemy was unable to take any measures for mosquito control; U. S. efforts at the time were rather late and inadequate, but did some good. The Japanese used no repellents and few mosquito nets, and had no effective system of atabrine or quinine suppressive medication. Their troops had little or no motor transport, and became exhausted from long marches with heavy loads. But perhaps most important was the fact that U. S. sick could be taken from the jungle to a well-organized field hospital and given rest and adequate treatment, and could be evacuated promptly by air if conditions warranted. In contrast, most Japanese suffering from malaria were made to stay in the lines and fight because of the great need for troops. Turning in for treatment was discouraged, and many died of malaria in fox holes in the line.

The Japanese never were able to set up a smoothly functioning field hospital on Guadalcanal, and the sick who were treated were ordinarily laid out on mats or on the ground in the jungle, sometimes being given

some scant shelter by means of palm thatch. Sanitation in these outdoor sick bays was atrocious. The sick were reluctant to use trench latrines, particularly at night, and deposited their excrement in the immediate vicinity of their mats, whence it was often washed into the lean-to shelters by the rain. Supplies of quinine and other medicines were depleted, and in some cases sick soldiers received intravenous injections of coconut milk, used because of the lack of saline solution. Food was extremely scarce, and coconuts, grass, taro, wild potatoes, fern and bamboo sprouts, and even crocodiles and lizards were used as emergency sources of nourishment. Hard-pressed and harried destroyers and barges, hastily discharging their cargoes and getting away by night, were able to evacuate only a few of the sick. Miserable, without shelter, soaked with rain, underfed, with little hope of evacuation, and bitten continuously by mosquitoes, it is no wonder that the Japanese died in large numbers.

An interesting side effect of this picture is that the universally afflicted Japanese soldier across the lines undoubtedly served as the principal human reservoir for the malaria constantly seeded into U. S. troops.

Beri-beri was second in importance among the diseases affecting Japanese forces on Guadalcanal. It appeared here and there in most units within 3 or 4 weeks after landing, and the incidence increased rapidly thereafter. More than 50 percent of the troops who had been on the island more than 3 months developed the disease. Soldiers in the front lines suffered more severely than those in the rear, since theft and pilferage of food consigned to advance units were widespread. Deaths from uncomplicated beri-beri were rare, as almost everyone had, in addition, malaria or some other disease. According to enemy diaries, it was considered the primary cause of death in some cases, and was of great significance as a complicating and contributing cause, along with malaria and enteritis. In addition, it gave rise to much suffering, disabled and weakened many enemy soldiers, and accelerated the disintegration of the Japanese forces.

Enteritis was prevalent and severe in enemy forces. Diarrhea and bacillary and amebic dysentery were most commonly observed, and occasional cases of typhoid and paratyphoid appeared. Under trying jungle conditions, where treatment was inadequate or unavailable, enteritis achieved a virulence seldom experienced in our forces. The primary death rate from enteritis infections was sizable, but these diseases, like beri-beri, wrought most of their havoc by weakening troops, causing loss of time in the lines, and as complications contributing to the high death rate from malaria, wounds, and other diseases.

Lack of adequate treatment facilities, constant soaking of bandages by rain, and the prevalence of complicating diseases such as malaria,



The Japanese attempted to evacuate their sick and wounded by barge to the Lae-Salamau region.

beri-beri, and enteritis, led to a wound mortality which must have run well over 80 percent. The number of wounded among the men evacuated from Guadalcanal was small, leading to the reasonable supposition that the vast majority of their wounded died. This is supported by the fact that many wounded Japanese were found dead in dressing stations overrun by our troops.

Possibly two-thirds of the Japanese who met their demise on Guadalcanal died of disease. No known estimate of enemy battle casualties exceeds 10,000, and in all probability the correct figure is less.

Of the 42,000 Japanese believed to have faced us on Guadalcanal, less than one-quarter were killed in action or died of wounds, less than one-quarter were evacuated, and well over one-half—over 20,000—perished from disease and starvation. In contrast, American dead and missing during the campaign were less than 1,500.

Whether this 20,000 figure represents the margin between victory and defeat is difficult to say with certainty, but a close analysis of the fighting indicates that disease may well have been the agency tipping the scale during the critical battles along the Matanikau, when the enemy attacks were repulsed by a narrow margin. But whether decisive or not, medical factors clearly rendered U. S. success far less costly.

BUNA-GONA

Health factors were of considerable importance in the Buna-Gona Campaign. Troops on each side suffered heavily from malaria, supply was difficult for both opposing forces, and rations were frequently

short. The Japanese attempted to evacuate their sick and wounded by barge or road to the Lae-Salamaua region, while the U. S. main lines of evacuation were by air to Port Moresby.

Clearly both antagonists operated under great handicaps of health and supply. Indications are that the Japanese had more difficulty in meeting these problems. Their troops became universally infested with malaria, their mortality from malaria was higher, they had considerable beri-beri, deaths from diarrhea and dysentery were common, and they handled battle casualties less effectively. U. S. forces had a low death rate from malaria and enteric disease, and no beri-beri. Hence it appears that the balance of health factors acted in our favor in this campaign, but was not decisive. The main factors were superiority of arms, men, and planes.

SCHOOLS AND TRAINING

Though the Japanese may have belatedly recognized the deficiencies of their medical corps in the last stages of the war, it was unlikely that they would have been able to remedy its deep-rooted faults—inferior training of personnel, poor equipment, loose organization, and an attitude toward patients which, by Western standards, hardly measures up to the dictates of the Hippocratic Oath.

Medical schools in Japan were either of university rank (*Daigaku*) or of lower rank, known as medical professional schools (*Igaku Seimon Gakko*). Those of university rank were faculties of Imperial Universities, government medical schools or private institutions. The lower ranking medical professional schools were all private institutions. While all private institutions were under the supervision of the Ministry of Education, it cannot be said that they were state controlled in the same manner as true government institutions.

State-controlled universities had two medical installations—the regular medical school, requiring the prerequisite of language, biology and chemistry; the other a medical college with lower entrance requirements and faculty standards. Both offered 4-year courses, which were usually followed by an internship in one of the provincial hospitals under the guidance of recognized medical teachers. Medical men entering the army were given additional training at the Tokyo Army Medical School and Hospital. Judging from the composition of its faculty, it can be inferred that the time spent at the army school was similar to an internship, with stress on military medicine, surgery, sanitation, bacteriology, and immunology. Courses were also given in applied tactics, cavalry training, and gas training, but not in weapons training.

In addition to the regular officers who completed, 1 year's training at the Tokyo Army Medical School, the army called up civilian

doctors to complete their normal conscription service in peacetime. In wartime, they were likely to be called to the colors at any time.

Army nurses were divided into two classes: Red Cross nurses, who had undergone 3 or 4 years' training at a Red Cross hospital after graduation from a girls' school; and army nurses, who may have been graduates of a nurses training course at a university hospital, or who were trained under the government hospital nurses' training program. The Red Cross nurses were drafted into service; the army nurses usually volunteered. Neither class was given the privileges of rank, and there is some evidence that both were accorded the treatment extended to sergeants.

In the army, the physician found himself pretty much on his own. There was no direct command in medical matters between echelons of the medical service. Medical officers of higher echelons guided those in lower units on technical matters, but all orders emanated from and were transmitted through line officers, who, according to a prisoner of war, gave little consideration to the needs of the medical service. Medical officers had little influence within their command and found it difficult to make their voices heard. Progressive measures and new techniques involving increased outlay of money were discouraged by the Japanese military leaders.

MEDICAL TREATMENT

Medical treatment ranged from good to poor. Because of the rigid military attitude, minor complaints were not brought to the attention of the medical officer—or, if they were, the complaining soldier was promptly called a goldbrick and sent packing. The individual soldier was expected to care for himself in all minor ailments, an attitude which explains the reason for the *reported* low incidence of venereal diseases and the high rate of tuberculosis. The former was virtually ignored as a military disease, and the latter was far advanced before it was detected.

Each soldier was paired with a "combat buddy" and carried a triangular bandage and two mercuric chloride dressings. If one of the buddies was wounded, the other applied a dressing and bandage. If this was impossible, first aid was administered by company medical corpsmen, who waited at the command post immediately behind the front lines until they were needed. They were equipped with tincture of iodine or mercurochrome, bandages, scissors, and a tourniquet. After administering first aid corpsmen evacuated casualties to the battalion or regimental dressing station. Each regiment had its own dispensary, where regiment and battalion medical officers treated light cases.

MEDICINES

The Japanese were necessarily frugal in their use of medical supplies. A prisoner of war said that sulfa drugs were not generally applied to fresh, open wounds, their use being confined almost exclusively to the treatment of gonorrhea complication, pneumonia, and wounds that showed resistance to other types of treatment. After March 1943, there was a decided lack of such drugs in the Japanese Army and their use was controlled rigidly. The prisoner stated also that the quantity of Bayer's drugs—considered as "good"—was decreasing; little aspirin, morphine, or cocaine was available, and quinine was scarce. The greatest concern, however, was a shortage of absorbent cotton and bandages.

COMMON DISEASES

All Japanese Army recruits received initial immunization against typhoid, cholera, plague, and smallpox, with dosages usually repeated once a year, except that they might be given more often if an epidemic occurred. Tetanus immunization was given only to wounded men, and smallpox was the only immunization consistently given to the civilian population. Immunization against bacillary dysentery was attempted by means of a vaccine whose effectiveness is doubtful. The good results of ordinary field sanitation for control of all types of dysenteries or enteritis is common knowledge but seemingly was never practiced by the Japanese. Epidemics of bacillary dysentery occurred in the homeland, where the mortality rate in some places, according to various sources, has been 50 percent. The high incidence of the disease was not surprising in view of the universal practice of using human excrement for garden fertilizer. This type of dysentery was characterized by sudden onset, pronounced symptoms, and high morbidity and mortality rates.

The Buna Campaign, mentioned earlier, yielded some interesting statistical data concerning mortality rates of diseases with which the Japanese Army had to contend. The death rates of cases admitted to the field hospital of the 21st Independent Mixed Brigade during the latter part of the campaign were listed as follows: 45 percent for malaria, 25 percent for beri-beri, 55 percent for gunshot wounds, 39 percent for fragment wounds, 60 percent for diarrhea, dysentery and enteritis, and 20 percent for tuberculosis.

It is difficult for the Western mind to understand the typical Japanese attitude toward the wounded and sick. Apparently the enemy gave full play to his disregard for the individual. Often the patient was thought to be an impediment to military operations, and no consideration was given the fact that, if given treatment, he might live to fight again some day. There have been many reports that the Japa-

nese killed their patients rather than let them fall into Allied hands, and that patients able to hold guns were ordered to fight to the end.

The Okinawa Campaign provided further evidence that Japanese killed their own wounded. Corridors in Admiral Ota's command post cave, for example, contained several hundred corpses laid out in neat rows. Most of them bore wounds that had been dressed; all appeared to have been dead about the same length of time; and there were indications that they had been killed by injections. Practices of this sort were corroborated repeatedly by prisoners.

An encouraging departure from this customary behavior, however, was reported by Allied forces on Tarakan. Netherlands East Indies prisoners of war stated that, prior to the withdrawal of the Japanese commander from the Fukukaku area, the wounded were issued rations and told to make for Allied lines, and those unable to walk were left behind in the headquarters area.



WHAT DO YOU KNOW ABOUT FOREIGN WEAPONS?

In the year 1346, French knights under Philip the VI of Valois rode into the Battle of Crécy and were slaughtered by a hail of English arrows. Their defeat can be attributed not so much to tactical errors, as to their failure to appreciate the capabilities of their enemy's weapons—in this case, the relatively new English longbow in the hands of English yeomen.

Today, most soldiers know that a knowledge of foreign weapons and matériel gives a man an insight to the capabilities and limitations of either a potential enemy or ally. Many have learned to appreciate the difference in bursting radius of a Jap grenade and its Australian counterpart, or the difference in range and accuracy between a "burp" gun and a Bren. Yet there is another reason why well-trained soldiers should be familiar with the operational use of foreign matériel.

Modern warfare is characterized by rapid maneuver dependent upon great masses of complex supplies. In the past there have been times when a unit, moving too fast for its supply train to keep pace, has found itself in great need of such things as ammunition, spare parts for motor vehicles, and replacement gun tubes. Very often this need for replenished supplies has been felt at the crucial and deciding phase of the operation. At such times, some commanders and their troops have saved their situation, or at least improved their position, by the resourceful use of captured foreign matériel.

An excellent example of such initiative took place during the recent war in Europe. General Patton's Third Army, faced in the fall and early winter of 1944 with a stringent ammunition shortage, refurbished and put into action serviceable items of captured artillery. On 2 November 1944, one corps—the XX—was employing 39 such pieces, classed as follows: four 76.2-mm Soviet guns, ten 88-mm German guns, eight 100-mm fortress guns, six 105-mm German howitzers,



Any foreign weapon may be useful to troops seeking to better their tactical position, but weapons in which an enemy has a qualitative lead are especially valuable. Above is seen a common or garden variety of old German 88 being used by U. S. troops; below, a German 170-mm gun used by the British.



two 122-mm Soviet guns, six 150-mm German howitzers, and three 155-mm French howitzers.

Up to that date, this corps had fired 30,920 rounds of ammunition weighing 660 tons and valued at \$702,391. For the week ending on 29 October of that year, 80 percent of the artillery ammunition fired by the XX Corps had been captured from the Germans. One time-on-target mission fired on a German troop concentration at Amanvillers was executed by U. S. tank destroyers, 90-mm antiaircraft guns, 155-mm M1 howitzers, and by German 105-mm gun howitzers, German 88's, Soviet 76's, and French Schneider 155-mm howitzers. The Soviet weapons, and those of the French, had been seized from Allied forces earlier in the war, and had been recaptured by the Third Army.



The importance of rapid infantry advance under conditions inhibiting prompt supply makes the infantryman's knowledge of foreign infantry weapons a possibly decisive factor in many engagements. Previously briefed on Jap weapons, these Marines were prepared to make the best use of this Jap Type 99 LMG.

Any matériel that has been captured by U. S. forces is the property of the U. S. Army. In Italy, and again in France, Belgium, and Germany, the Nazis attempted to claim that the use of German weapons by Allied troops was illegal. The Germans—even the German G. I.—certainly knew better, for the German Army towards the end of the war resembled an arms museum, with small arms and every other type of weapon culled from every army in Europe. Arms and other matériel captured in combat have always, throughout history, become the acknowledged property of the conqueror, and may be used as he sees fit.

All that is needed is knowledge. Not only knowledge of what the other man's weapon will do, but knowledge of how to make it work for you.



RED ARMY GUARDS

The awarding of medals and citations for valor and distinguished service figures prominently in boosting Red Army morale. A Soviet soldier whose army work consists chiefly of baking pies in an officers' mess may be the proud wearer of a "Distinguished Cook" badge. Another Red Army G. I. (*Krachhoapmeeu*) may sport the Red Star, a myriad of campaign ribbons, and a "Distinguished Sniper" badge. Pride of military achievement is inherent among all warriors, and one of the most valued designations a Soviet soldier can earn is to be cited as a "Guardsmen." Besides wearing the distinctive Guards badge, the soldier enjoys a great amount of prestige and, moreover, receives double pay.

Guards units are picked Red Army troops who have distinguished themselves by their excellent training, discipline, and courage in battle. The Guards title in the Red Army is significant not only because it was sometimes used during World War II as a means of restoring impaired morale among badly cut up units, but also because the honor combines the traditional Guards of the old Czarist army with the memory of the Soviet Red Guards of 1918.

Under Peter the Great the first Guards regiments (*Preobrazhensky* and *Izmailovsky*) were established; others were created in the 18th and 19th centuries. The Czarists Guards were elite units with resplendent uniforms, rigid training, and great traditions. The term "Red Guards" was a designation first applied by Lenin to the groups of armed urban workers who supported the Soviets after the October Revolution. These Red Guards were absorbed into the Red Army early in 1918 and lost their separate identity.



These tankers can be spotted as Guardsmen by the Guards badge on their right breasts. Guards units are so designated on their colors and standards. These Red Army men conform to their custom of following the inspecting party with their eyes. They haven't painted Guards badges on the tanks, but many do.

WORLD WAR II REVIVAL

On 18 September 1941, the 100th, 127th, 153d and 161st Rifle Divisions were redesignated 1st through 4th Guards Rifle Divisions. This establishment of Red Army Guards units occurred at a time when the Soviet Government was endeavoring to counteract the effects of initial reverses by associating its defensive war with all the greatest days and traditions of Russia's military past. The war with Germany was termed the Fatherland War; new orders and decorations named for great soldiers of Russia's past were created; and Russian patriotism was drawn upon heavily to furnish the steadfastness and energy necessary to stop and drive back the German invaders.

The awarding of Guards titles in the Red Army is rather elastic. Units from entire armies down to independent battalions can receive the honor. Exceptions to the general rule are the rocket-launcher regiments, all of which have the designation Guards Mortar Regiments as distinguished from ordinary mortar regiments armed with mortars, and the 10 Guards airborne divisions whose employment has been primarily as shock infantry and not as airborne troops.

Non-Guards units, upon conversion to Guards status, are renumbered in the Guards series; during the war their old numbers were often reassigned to newly activated units. Tank armies, on the other hand, retain their old numbers upon conversion to Guards tank armies.

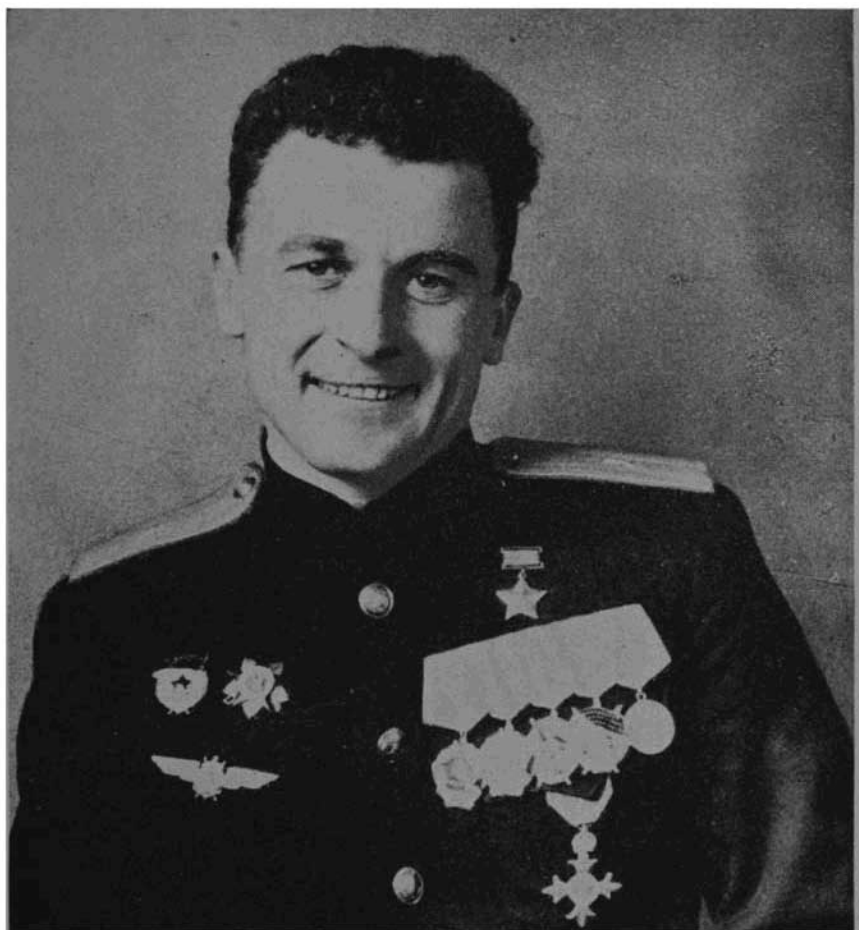
GUARDS DESIGNATION BOOSTS MORALE

The award of the Guards title to restore impaired morale is reflected in the fact that Guards units, in some cases, did not demonstrate superior fighting ability during the war, and were not specially used as shock troops. However, the Tables of Organization and Equipment of Guards rifle divisions are slightly stronger than those of non-Guards divisions, and officer replacements are assigned to Guards units on a preferential basis.

The great majority of Soviet rifle Divisions to receive the Guards designation were renamed during late 1941, 1942, and early 1943; the



Red Banner awards to units have been important morale raisers. The master sergeant shown here sports a Red Banner award (2d from right). His other morale-raising decorations are (from left): Distinguished Sniper, Red Star (equals a "V" Bronze Star), and Order of Glory 1st Class (equals our DSC).



Red Army pilots raked in the hardware, just like pilots of other forces. This Guardsman has the Red Banner twice, and the Gold Star (top of left breast; the equivalent of the Congressional Medal). On his left pocket is the Order of the British Empire, won protecting Lend-Lease convoys from the Luftwaffe.

last rifle division to become a Guards unit received the title in October 1943. Tank, artillery, and other units continued to be renamed Guards for some months after that. It is believed that no ground units were converted to Guards after early 1944.

About 20 percent of Soviet rifle divisions became Guards units and as many as 30 percent of tank and mechanized units; the title also was liberally awarded to artillery units, air units, and special troops. Almost all of the Red Army's cavalry has been renamed as Guards units.

Individuals assigned to units at the time the units became Guards automatically became Guardsmen and retain the title even if they are later transferred to a non-Guard unit.

Large Guards formations, such as armies, corps and divisions, usually are composed principally of subordinate Guards units.

OTHER MORALE BUILDERS

Contrasting with the Guards title is the designation "shock" which was applied to five armies in 1941 and 1942. These shock armies originally were specially reinforced and their title was a correct description of their intended role. In general they remained active armies, somewhat stronger than average, even after the original distinction of being shock units was lost.

Another morale-building decoration is the "Distinguished" badge. These badges are awarded to all kind of specialists for outstanding work: cooks, snipers, mortar men, scouts, etc.

An important distinction in the Red Army is possession of the Red Banner, which is awarded to units for outstanding bravery and remains perpetually with the unit regardless of changes in the name or number of the organization. Members of Red Banner units are considered under marked obligation to serve with distinction. Should the banner be lost in battle because of faintheartedness, the commander and all officers are subject to court-martial, and the unit is broken up.

In addition, units were renamed after the cities and towns which they liberated; for example, one may meet the Krasnograd 115 Anti-tank Guards Regiment, which may also be the proud possessor of the Order of the Red Banner.

